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# THE JOURNAL OF POLITICAL ECONOMY

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THE QUANTITY OF MONEY AND PRICES, 1860-1891

AN INDUCTIVE STUDY.

## I.

MUCH of the prevalent monetary discussion of the day includes or touches upon the subject of prices, and almost invariably when that subject is mentioned there comes to the surface, in one form or another, the theory that the main element which influences prices today is the quantity of money in circulation. More money is the popular panacea constantly demanded from our national legislature.<sup>1</sup> And the demand is kept up not only by Populist orators, but by economists from whose abstractions, often misinterpreted, encouragement is drawn.

The *Quantitäts-Theorie* is not a new one, but several circumstances have combined recently to give to it exceptional prominence. In the first place, it forms the basis of the demand for the free coinage of silver: There is not enough silver in the country to supply the needs of business and trade; it is impossible for one metal alone to fulfill all the demands made upon it;

<sup>1</sup> "There has not been introduced into Congress, in either branch, within the memory of many who are here present, a single law upon the currency question but that has had as its aim and desire the creation of a large volume of currency."—*Speech of HON. JAS. H. ECKELS, Comptroller of the Currency, before the Commercial Club of Chicago, October 27, 1894.*

and since prosperity can neither be restored nor maintained while there is a scarcity of the circulating medium, silver must be remonetized, if low prices and consequent hard times are not to continue. The plain assumption in this is, of course, that it is the quantity of money alone upon which prices depend and which constitutes the influential factor in fixing the general price-level. But the Populist demand for free silver and the idea that an unlimited issue of money is going to make the poor suddenly richer would hardly be worthy of serious consideration were it not for the fact that it is closely related to another question, that of bimetallism.

In any consideration of the claims of international bimetallism, one of the first facts which forces itself upon the attention is the close connection between the demand for free silver and the position of the advocates of an international bimetallic standard. President E. Benj. Andrews frankly admits this.<sup>1</sup> He declares that many of the premises of the ultra silver party are legitimate and valid; that they are perfectly correct in asserting the appreciation in gold and the consequent disastrous fall in prices, adding that it is "only their proposed remedy" which is to be criticised. In other words, both "home bimetallism" and international bimetallism find a common basis in the theory that it is the *decreased quantity of money which has brought about the fall in prices*.<sup>2</sup> The quantity decreased, there was an unusual increase in demand, and prices fell.

The cause of the enhanced demand, according to the bimet-

<sup>1</sup>"The Committee is not unaware that its existence and work may be construed as an encouragement to the ultra silver party. Why, it is said, are you willing to encourage a policy which you admit to be unsafe? The reply to this is that some of the premises of the free-silver doctrine are irrefragable. . . . In contending that gold has immensely appreciated since 1873, and that this, with the fall of general prices which it involves, is a terrible evil, our Western friends are perfectly right. To this extent the facts, the logic, the ethics of the situation are with them."—E. BENJ. ANDREWS, "The Bimetallist Committee of Boston and New England." *Quarterly Journal of Economics*, April 1894, p. 321.

<sup>2</sup>"There is impressive evidence proving . . . that there has been a fall in general gold prices, an appreciation of gold that has proceeded almost altogether from the decreased supply of that metal and the enhanced demand for it."—*Ibid.* p. 322.

allist claim, is found in the demonetization of silver in 1873.<sup>1</sup> The sudden increase of demand consequent upon the simultaneous adoption of the monometallic system coincided with an alleged decrease in gold production. But in any case, it is claimed, gold is too limited in amount to meet the demands of international and domestic exchanges; the result is, as has been seen, a marked appreciation; the circulating medium has become more and more scarce and prices have fallen.<sup>2</sup> The demonetization of silver, by diminishing the quantity of the world's circulating medium, has brought about the present condition of depression and low prices.<sup>3</sup> The remedy is obviously to reverse the process, to increase the amount of money available for domestic and international exchanges by remonetizing silver, thereby relieving the stringency of the money markets of the world and at the same time raising prices. The key to the whole situation lies in the quantity theory.

The theory itself in its modern form dates back to the beginning of the century. Starting from the conception of an economy, statical at least for the moment, Ricardo urged that at any given moment the volume of trade may be considered as a certain fixed amount; a certain bulk of commodities wait to be exchanged for one another, and consequently a certain definite quantity of the medium of exchange is required in order to perform just that amount of money work. Prices at that moment are fixed by the relation, whatever it may be, between the two

<sup>1</sup> Germany demonetized silver and adopted a single gold standard in July, 1873. the United States demonetized silver the same year; Holland, in 1875, and Roumania and Austria still later.

<sup>2</sup> Of course the appreciation of gold is not the cause of the fall in prices; it is the fall. The occasional confusion of terms in the discussions of the subject makes it necessary to call attention to what would otherwise go without saying.—See F. W. TAUSSIG, *Silver Situation in the United States*, pp. 93 *et seq.* Also DAVID A. WELLS, *Recent Economic Changes*, p. 207, note.

<sup>3</sup> "The advance of gold monometallism [is] a grave threat to production and trade, to the welfare of the masses, and even to the stability of society; and . . . no small part of the industrial and social suffering of the past twenty years is traceable to this cause."—E. BENJ. ANDREWS, "The Bimetallist Committee of Boston and New England." *Quarterly Journal of Economics*, April 1894, p. 320.

definite amounts of commodities and coin. The value of the medium of exchange is similarly fixed by the number of commodities which each piece of coin will procure, which in turn is determined by the whole quantity of money in use. Under such circumstances, to increase or diminish the quantity of money used in exchanges is to diminish or increase the value of that money.<sup>1</sup> Depreciation of the circulating medium of a country, therefore, is the result simply of "too great abundance,"<sup>2</sup> and it follows logically that if only the amount or quantity of coin could be sufficiently limited, the value of money or price might be regulated at will.<sup>3</sup> Conversely, also, the value of coin regulates the amount of it required,<sup>4</sup> value and quantity being reciprocally related.

This is the foundation of the classic doctrine which has played so large a part in economic theory from that day to this. It should be noted, however, that the principle is not here laid down unrestrictedly, but is limited both by the hypotheses of the author and by the economic conditions of the times in which he wrote. Such express qualifications as: "While the state alone coins," "if the public could be secured against such illegal

<sup>1</sup>" . . . As the addition of money to the circulation beyond the regular demands of commerce will diminish the value of the money, the trade of false coiners must cease," etc.—Reply to Mr. Bosanquet's Practical Observations on the Report of the Bullion Committee. RICARDO'S *Works*, McCulloch's Edition, London, 1881, chapter vi.; Observations on the Principles of Seigniorage, p. 345.

<sup>2</sup>"From these principles it results that there can be no depreciation of coin but from excess. However debased a coinage may become, it will preserve its mint value, that is to say it will pass in circulation for the intrinsic value of the bullion which it ought to contain, provided it be not in too great abundance."—*Ibid.* p. 347.

<sup>3</sup>"Whilst such money is kept within certain limits, any value may be given to it as currency. . . . The value of such money must depend wholly upon its quantity."—*Ibid.* chap. vi. p. 346.

<sup>4</sup>"The quantity of money that can be employed in a country must depend on its value. . . . A circulation can never be so abundant as to overflow; for by diminishing its value, in the same proportion you will increase its quantity, and by increasing its value, diminish its quantity. . . . While the state alone coins, there can be no limit to the charge of seigniorage; for by limiting the quantity of coin it can be raised to any conceivable value."—RICARDO'S *Principles of Political Economy and Taxation*, McCulloch's Ed., London, 1881, chap. xxvii., On Currency and Banks, p. 213.

additions to the circulating medium,"<sup>1</sup> *et cetera*, show the care with which the general principle is hedged in, its validity and also its theoretical, abstract character guarded. With such and such limitations, such and such a principle may hold good. Reasoning *a priori*, supposing an isolated community in which coining and the regulation of the currency are under the absolute control of the state, where every exchange requires the actual passage of coin, where also there are no changes in the cost of production either of the precious metals or of commodities, the quantity of money might determine its value. As Mill himself saw and expressly stated in a passage which is uniformly not quoted by the later adherents of the quantity theory: "The proposition respecting the dependence of general prices upon the quantity of money in circulation, must for the present be understood as applying only to a state of things in which money, that is, gold or silver, is the exclusive instrument of exchange, and actually passes from hand to hand at every purchase, credit in any of its shapes being unknown. When credit comes into play as a means of purchasing, distinct from money in hand, . . . the connection between prices and the amount of the circulating medium is much less direct and intimate, and such connection as does exist no longer admits of so simple a mode of expression."<sup>2</sup>

The limitations imposed by the monetary conditions of his times also are evident, as it is a well-known fact that a large part of the transactions of the world today are carried on by means of a refined system of barter, through the use of checks, clearing houses and a deposit currency.<sup>3</sup>

Ricardo's analysis has been made use of in a modern form by Mr. G. J. Goschen, whose position as Chancellor of the Exchequer has given additional prominence to his views. In an address in

<sup>1</sup> RICARDO'S *Principles of Political Economy and Taxation*, McCulloch's Ed., London, 1881, chap. xxvii., On Currency and Banks, p. 213, and "Reply to Bosanquet," p. 345.

<sup>2</sup> MILL, *Principles of Political Economy*, vol. ii. book iii. chap. viii. sec. 4.

<sup>3</sup> See p. 163 below.

1883<sup>1</sup> he uses the argument from the scarcity of gold, which is, however, merely another form of expressing the diminution in the quantity of the circulating medium.<sup>2</sup>

Mr. Robert Giffen, Statistician of the British Board of Trade, holds<sup>3</sup> similar views as to the "actual insufficiency of the current supply of gold for the current demands of gold-using countries," and finds further proofs of the diminishing quantity of gold in the general change in nominal values and in the marked "disturbances" in the rate of discount.<sup>4</sup>

In America, President F. A. Walker, to mention but one name out of many, has long since announced his allegiance to the theory of Ricardo, whom he believes to have "most fully and justly apprehended the relation of money to prices."<sup>5</sup> Extensive and repeated quotations from Ricardo occur in most of President Walker's books, together with expositions of the theory as found in Mill, Hume, etc. Mill's restatement of the quantity doctrine is accepted, with an additional qualification by which the supply of money includes rapidity of circulation as well as volume of coin.<sup>6</sup>

<sup>1</sup>An address before the Institute of Bankers, April 18, 1883, on the Probable Results of an Increase in the Purchasing Power of Gold, published in the *Journal of the Institute of Bankers*, May 1883.

<sup>2</sup>He estimates that within the last ten years Germany, Italy and the United States alone have absorbed an amount of gold currency equal to about £200,000,000. This "extraordinary and additional demand" has fallen on an annual supply of £20,000,000, of which £10,000,000 is annually used in the arts and manufactures; and thus "the demand" of £200,000,000 would absorb the available yield not of ten but of twenty years. The result of such a phenomenon, "according to the laws and principles of currency" is a fall in the prices of commodities generally. *Ibid.* pp. 276, 277.

<sup>3</sup>Mr. Giffen has since modified his position somewhat. In his *Case Against Bimetallism* he denies the validity of the quantity theory, but seems to be not wholly clear or consistent on the point.

<sup>4</sup>See "Gold Supply; the Rate of Discount and Prices."—*Essays in Finance: Second Series*, London and New York, 1886, pp. 79 *et seq.* Also "Trade Depression and Low Prices," *Ibid.* pp. 1-36. [First published in *Contemporary Review*, June 1885.] Also, *Report upon the Present Status of Bimetallism in Europe*, by EDWARD ATKINSON, pp. 205 *et seq.*

<sup>5</sup>F. A. WALKER, *Political Economy*, New York, 1885, p. 153.

<sup>6</sup>"The supply of money . . . is a quantity of two dimensions. We need to know not only its volume, the number of coins of a given weight and fineness of metal, but also its rate of movement, or as it is usually said, its rapidity of circulation."—F. A. WALKER, *Money*, p. 63.

The money supply thus defined, "determines what the general scale of prices shall be."<sup>1</sup> "The amount of money in a country is regulated by its value,' and conversely, the value of money in any country is determined by the amount existing."<sup>2</sup>

So much for the statement of the theory.<sup>3</sup> Its prevalence and general acceptance only make the inquiry more pertinent: How much truth is there in it? What are the necessary limitations or conditions under which it might hold true? How far are these conditions present today?

## II.

In order to answer these questions and to determine the degree of validity of the theory in question, there must be an appeal to facts. As has been already seen, Ricardo's statement of the quantity theory is abstract and hypothetical. But deduction is incomplete without inductive verification.<sup>4</sup> "Observation

<sup>1</sup> *Money, Trade and Industry*, p. 41.

<sup>2</sup> *Money*, p. 41.

"The value of money, like the value of anything else, is determined by the relation between supply and demand. The goods to be exchanged for money-pieces remaining the same in amount, and the number of pieces having been increased, the purchasing power of each piece falls, irrespective of any popular distrust of the coin."—*Political Economy*, p. 158.

<sup>3</sup> For further discussions of the quantity principle, see HUME's *Essays, Moral, Political and Literary*, London, 1875, vol. i. part ii. essay iii. pp. 313–315; MILL's *Principles of Political Economy*, London, 1848, vol. ii. chap. vii. pp. 14–20 *et seq.*; FRANCIS BOWEN's *American Political Economy*, Boston, 1865, pp. 314, 389, etc., which contains an excellent exposition of the foundation and meaning of the theory; DR. ARNDT, *Publications of the German Society for International Bimetallism*, No. 11; HERMANN SCHMIDT, *The Silver Question and its Social Aspects: An Inquiry into the Existing Depression of Trade and Present Position of the Bimetallic Controversy*, London, 1886; HANSARD's *Address before the Institute of Bankers, December 17, 1884, On the Prices of Some Commodities during the Decade 1874–1883*.

For a summary of the last three articles, see EDWARD ATKINSON's *Report on the Present Status of Bimetallism in Europe*, pp. 203–212. See also ADAM SMITH's *Wealth of Nations*, Hartford ed. 1818, vol. i. pp. 212, 230 *et seq.*

<sup>4</sup> "The ground of confidence in any concrete deductive science is not the *a priori* reasoning itself, but the accordance between its results and those of observation *a posteriori*."—MILL's *Logic*, book vi. chap. ix. sec. 1.

"Without the aid of an extensive knowledge of facts, there is danger of ascribing to economic doctrines a much wider application than really belongs to them."—KEYNES's *Scope and Method of Political Economy*, p. 218.



determines the limits of the positive validity of laws deductively obtained."<sup>1</sup> The comparison of a hypothetical, deductive law with observed facts is the only way of finding out how far, in any given case, allowance must be made for the action of other disturbing causes, and the proof of the law consists in the fact that it affords a satisfactory explanation of actual phenomena.

The purpose of the present study is to put the deductive law of the relation between the quantity of money and prices to a particular test, and see how complete the correspondence between fact and theory may be. In this sense, therefore, it may be called inductive, though not inductive in the sense of taking an analysis of facts as a starting point for discovery.

The field chosen for the present investigation is the United States during the years 1861-1892. This period is selected (1) because of the convenience and availability of a certain amount of data bearing upon it; (2) because of its nearness and close connection with American economic problems of today; and (3) because the character of the period itself, embracing different and widely varying conditions, throws into clearer relief both the variable and the permanent forces which may be operating within it. The disturbed political and economic conditions show their effects plainly in any analysis of the first part of the period, from suspension to resumption of specie payments (1861-1879); while the later years exhibit a more usual, normal condition of the country and of monetary affairs, and a consequent increased regularity in the movement of prices. The combination of the two, therefore, will serve to check hasty or unfounded conclusions drawn from a study of either period taken alone.

The problem, then, is by an inductive study of the facts of price fluctuations during a certain period of years to see whether or not those fluctuations are adequately accounted for by the theory in question. If the appeal to the actual course of events reveals a discrepancy between fact and theory, the presence of "disturbing causes" must be inferred, and the problem then will be "to find the other causes and laws implicated in the

<sup>1</sup> KEYNES'S *Scope and Method of Political Economy*, p. 217.

results.”<sup>1</sup> More than that, however, if the quantity theory fails, partly or wholly, satisfactorily to explain the observed phenomena it means not only a further proof that pure abstraction is an unreliable instrument in dealing with the problem, but that in this particular case the necessary modifications of an *a priori* law when applied to changed economic conditions have been overlooked or neglected.

The data of prices are found in a recent investigation by Dr. Falkner, whose figures constitute practically the only reliable source of information for this period.<sup>2</sup> The figures are, in nearly all cases, actual,<sup>3</sup> not average prices, for the most part for the month of January; the quotations are obtained directly from the wholesale houses and cover a range of two hundred and twenty-three articles arranged in eight selected groups.<sup>4</sup> The general table of currency prices<sup>5</sup> furnishes the basis for the price-line up to 1879; from 1879 to 1891 the same two hundred and twenty-three articles are continued, thus giving a fairly continuous line both of paper and specie prices.<sup>6</sup>

The price-line being measurably reliable, the next and more

<sup>1</sup> CAIRNES'S *Political Economy, its Character and Logical Method*. New York, p. 87.

<sup>2</sup> *Wholesale Prices, Wages and Transportation, Report by Mr. Aldrich from the Committee on Finance, March 3, 1893.* (*Senate Report No. 1394*, Second Session, LII. Congress. Professor ROLAND P. FALKNER, Statistician.)

<sup>3</sup> *Ibid*, Part I, p. 29.

<sup>4</sup> For the list of articles and names of groups, see *Ibid*. pp. 30-52.

<sup>5</sup> *Ibid*. Table 22. Relative prices in each year, 1840-1891, by groups of articles, p. 91.

<sup>6</sup> For a comparison and analysis of the movement of different groups, see *Ibid*. pp. 56-59 *et seq.* The figures given in the relative price-tables are obtained by a system of index numbers; prices for January 1860, are taken as the basis, at one hundred per cent., any variations above or below that figure being computed as a percentage of the 1860 price. All articles are given equal weight, the general figure being a simple arithmetical average of all the index numbers. Dr. Falkner has made use of another method also, that of the so-called weighted average which is based upon estimated consumption, but the results of the two methods are practically the same after 1860.

*Senate Report*, pp. 28, 29.

*Ibid*, pp. 93-94 *et seq.*

difficult task is to get adequate figures as to the volume of money in circulation from 1861 to 1891. A comparison of the Reports of the Secretary of the Treasury beginning with that of 1878 shows such frequent discrepancies between the earlier and later figures that it seems doubtful whether much dependence can be placed upon any of them. The Secretary's report for 1893, however, is probably the most accurately compiled of the collection. The figures given in that volume therefore are used in the present study.<sup>1</sup>

It should be noted, however, that the Treasury Department in giving the official estimate of the volume of all kinds of money in the United States (including the estimated amounts of gold and silver coin in the country), excludes one and two-year notes and compound-interest notes, these not being recognized by the Department as money. While this is probably the expedient position in the long run, it is still true that of the 7-30's issued under act of June 20, 1864, more than 20 millions were paid to the soldiers direct,<sup>2</sup> and that therefore these notes may have some claim to recognition as currency.

Again in November 1864, \$120,519,110 of one and two-year notes were outstanding (Act of March 3, 1863), and Secretary Fessenden gave it as his opinion that "to a considerable extent these notes have been and will continue to be used as currency."<sup>3</sup> When, in consequence of the inconvenience of the coupons, these notes were partially retired—90 millions were withdrawn and destroyed—and their places taken by three-year 6 per cent., semi-annual, compound-interest notes (Acts of March 3, 1863 and June 30, 1864), the total amount of interest-bearing notes outstanding November 22, 1864, reached the sum of \$210,222,870. In regard to this amount the Secretary writes: "What proportion of these may be considered as an addition to the circulation I am unable to deter-

<sup>1</sup> *Annual Report of the Secretary of the Treasury on the State of Finances for the Year 1893*, Table H, p. cviii; also (same figures) *Statistical Abstract of the United States*, 1893, p. 43.

<sup>2</sup> KNOX's *United States Notes*, pp. 97-98.

<sup>3</sup> *Report of December 6, 1864*; quoted by KNOX, p. 110.

mine. To that extent, whatever it may be, they contribute to the amount of the currency and thus in some degree occasion, and in a still greater degree sustain, an increase of prices." While this cannot be called a definite statement, it at the same time expresses the belief of one who had great facilities for knowing that these forms of paper did act as currency. It is not unlikely, therefore, that a more accurate statement of the facts, could such be obtained, would show an increase in the volume of circulation above that indicated by the accepted figures. The *Statistical Abstract of the United States* for 1878, p. 14, which includes one and two-year notes and compound-interest notes, and takes account of paper money only, gives the figures as follows:

|      |                |      |                |
|------|----------------|------|----------------|
| 1861 | 202,005,767.00 | 1870 | 700,375,899.48 |
| 1862 | 333,452,079.00 | 1871 | 717,875,751.06 |
| 1863 | 649,867,282.75 | 1872 | 738,570,903.52 |
| 1864 | 833,718,984.34 | 1873 | 750,062,368.94 |
| 1865 | 983,318,685.76 | 1874 | 781,480,916.17 |
| 1866 | 881,904,685.96 | 1875 | 773,646,728.69 |
| 1867 | 826,827,153.52 | 1876 | 738,376,535.89 |
| 1868 | 720,412,602.75 | 1877 | 698,184,269.84 |
| 1869 | 693,946,056.61 | 1878 | 688,597,275.27 |

In order to facilitate the comparison of the several sets of figures and to throw the facts into as clear relief as possible, the figures have been charted.

Turning first to the course of prices, as shown in the accompanying table and chart. In Chart I. the line *AA* shows the movement of general prices for the thirty years from 1861 to 1892. The result as a whole confirms the belief that prices have generally fallen in recent years, but the fall is in some respects much less marked than is commonly supposed. A comparison of the price-level of 1861 with that of 1891 shows a fall of only 8.3 per cent., a very small percentage for a period of thirty years. Prices are but slightly lower in 1891 than in the period just preceding the Civil War; so far as prices are concerned, we are but just beginning to get back to the level of the years before those abnormal conditions set in. A com-

parison of the level of 1891 with that of 1865, on the other hand, shows a fall of 57.4 per cent. Since 1873 there has been a decline of 32.9 per cent.

TABLE I.

| YEAR | VOLUME OF CURRENCY |           | PRICES    | TRANSACTIONS OF N. Y. CLEARING-HOUSE |           | U. S. CUR. VALUE OF GOLD |
|------|--------------------|-----------|-----------|--------------------------------------|-----------|--------------------------|
|      | Amount             | Per Cent. | Index No. | Amount                               | Per Cent. |                          |
| 1860 | \$ 435,407,252     | 100.0     | 100.0     | \$7,231,143,957                      | 100.0     | \$                       |
| 1861 | 448,405,767        | 102.9     | 100.6     | 5,915,742,758                        | 81.8      |                          |
| 1862 | 334,697,744        | 76.8      | 117.8     | 6,871,443,591                        | 95.0      | 113.3                    |
| 1863 | 595,394,038        | 136.7     | 148.6     | 14,867,597,849                       | 205.6     | 145.2                    |
| 1864 | 669,641,478        | 153.7     | 190.5     | 24,097,196,656                       | 333.2     | 203.3                    |
| 1865 | 714,702,995        | 164.1     | 216.8     | 26,032,384,342                       | 360.0     | 157.3                    |
| 1866 | 673,488,244        | 154.6     | 191.0     | 28,717,146,914                       | 397.1     | 140.9                    |
| 1867 | 661,992,069        | 152.0     | 172.2     | 28,675,159,472                       | 396.5     | 138.2                    |
| 1868 | 680,103,661        | 156.1     | 160.5     | 28,484,288,637                       | 393.9     | 139.7                    |
| 1869 | 664,452,891        | 152.6     | 153.5     | 37,407,028,987                       | 517.3     | 133.0                    |
| 1870 | 675,212,794        | 155.0     | 142.3     | 27,804,539,406                       | 384.5     | 114.9                    |
| 1871 | 715,889,005        | 164.4     | 136.0     | 29,300,986,682                       | 405.2     | 111.7                    |
| 1872 | 738,309,549        | 169.5     | 138.8     | 33,844,369,568                       | 468.0     | 112.4                    |
| 1873 | 751,881,809        | 172.6     | 137.5     | 35,461,052,826                       | 490.3     | 113.8                    |
| 1874 | 776,083,031        | 178.3     | 133.0     | 22,855,927,636                       | 316.0     | 111.2                    |
| 1875 | 754,101,947        | 173.1     | 127.6     | 25,061,237,902                       | 346.5     | 115.1                    |
| 1876 | 727,609,388        | 167.1     | 118.2     | 21,597,274,247                       | 298.6     | 111.5                    |
| 1877 | 722,314,883        | 165.8     | 110.9     | 23,289,243,701                       | 322.0     | 104.7                    |
| 1878 | 729,132,634        | 167.4     | 101.3     | 22,508,438,442                       | 311.2     | 101.4                    |
| 1879 | 818,631,793        | 188.0     | 96.6      | 25,178,770,691                       | 348.1     |                          |
| 1880 | 973,382,228        | 223.5     | 106.9     | 37,182,128,621                       | 514.1     |                          |
| 1881 | 1,114,238,119      | 255.9     | 105.7     | 48,565,818,212                       | 671.6     |                          |
| 1882 | 1,174,290,419      | 269.6     | 108.5     | 46,552,846,161                       | 643.7     |                          |
| 1883 | 1,230,305,696      | 282.5     | 106.0     | 40,293,165,258                       | 557.2     |                          |
| 1884 | 1,243,925,969      | 285.6     | 99.4      | 34,092,037,338                       | 471.4     |                          |
| 1885 | 1,292,568,615      | 296.8     | 93.0      | 25,250,791,440                       | 349.1     |                          |
| 1886 | 1,252,700,525      | 287.7     | 91.9      | 33,374,682,216                       | 461.5     |                          |
| 1887 | 1,317,539,143      | 302.5     | 92.6      | 34,872,848,786                       | 482.2     |                          |
| 1888 | 1,372,170,870      | 315.1     | 94.2      | 30,863,686,609                       | 426.8     |                          |
| 1889 | 1,380,361,649      | 317.0     | 94.2      | 34,796,465,529                       | 481.2     |                          |
| 1890 | 1,429,251,270      | 328.2     | 92.3      | 37,660,686,572                       | 520.8     |                          |
| 1891 | 1,497,440,707      | 343.9     | 92.2      | 34,053,698,770                       | 470.9     |                          |
| 1892 | 1,601,347,187      | 367.7     | ....      | 36,279,905,236                       | 501.7     |                          |

The general features of the period hardly require comment. In the four years from 1861 to 1865 prices rose 115.5 per cent., and in the succeeding six years fell 37.2 per cent.; in 1873 they remained about stationary, but from 1873 to 1879 there was a marked and uninterrupted fall. After the resumption of specie payments, the years 1879-1884 show the reaction of business

prosperity upon prices, causing a slight interruption of the downward movement. From 1884 to 1892 there is little change.

Prices have fallen phenomenally since 1865, taking the period as a whole. How far has the volume of money shown a similar movement? Has the line of currency circulation moved in conformity with the deductive quantity law?

The volume of the circulating medium is indicated by the line *BB* (Chart I.).<sup>1</sup> A glance at its outline reveals a movement quite the opposite of what might be expected.

Starting at a level of 102.9 in 1861, in 1892 the amount of currency in circulation stood at 367.7 per cent., showing, therefore, instead of a decrease, an increase of 257.3 per cent. Since 1862 the gain has amounted to 378.7 per cent. As compared with prices, which rose 115 per cent. from 1861 to 1865, the volume of currency increased in that period 59.4 per cent., about half as much. From 1865 to 1891 a decrease in price of 57 per cent. is contrasted with an increase in currency of 124 per cent.

We have now the two lines of prices and the volume of the circulating medium. What ground does their movement furnish for the claim that the quantity of money in circulation determines prices?

Exclusive of the three years from 1862 to 1865, the volume of money and prices move in exactly opposite directions. From the latter year on, while prices fall, the money in circulation is steadily increasing, and the divergence becomes only more marked after normal conditions are re-established. Now, if high prices and business prosperity are an inevitable result of increasing the amount of currency in a country, why this divergence between prices and the amount of money in circulation? According to the *a priori* law, either the amount of currency

<sup>1</sup>In order to make the comparison between the two lines of prices and currency circulation as complete as possible, the amounts of money have been reduced to a basis uniform with that of prices; *i. e.*, the amount of currency in circulation in 1860 is considered as 100 per cent., and the amounts of each of the following years reduced to a percentage of that sum.

It may also be stated here that the same course is pursued with reference to the amounts of clearings—line *CC*, Chart I., transactions of the New York Clearing House. See p. 160 below.

should have decreased or prices should have risen. But neither of these events has taken place. For twenty-seven years out of the thirty there is no relation apparent between the quantity of money in circulation and prices. The quantity theory, if operative at all, has been overbalanced or checked by some other stronger force or forces; some disturbing causes have intervened to produce effects for which the quantity theory can give no explanation,—for the understanding of which it is wholly irrelevant.

The most important place where some connection might be claimed between the two lines, is the war period of extraordinary paper-issues from 1861 to 1865, when both prices and the volume of currency rose at a rapid rate. These four years, therefore, are the crucial period for the quantity doctrine and demand more detailed investigation. For this purpose, since no reliable detailed price-table existed, I have compiled a table (comprising one hundred and fourteen<sup>1</sup> out of the original two hundred and twenty-three articles already used) which gives quarterly prices from January 1861 through January 1865.<sup>2</sup> Table II.<sup>3</sup> shows first the

<sup>1</sup> The number of articles is either 114 or 113, changing in April, 1864, to 110; the articles omitted in the latter case are the principal items in the group "Fuel and Lighting."

<sup>2</sup> The exact quotations are found in the *Senate Report*, part 2, pp. 65-292.

Five articles, viz.: Sulphur, Tin, Jute, Castor Oil and Onions, are not given in this table although complete quarterly prices are printed for each of them in Part 2 of the Report. The reasons for their omission are the same as those which influenced Dr. Falkner to leave them out of the general price-tables in Part I, viz.:

For Sulphur, Part 2, p. 264, prices are not all in currency.

Tin, " " " 215, " " " " " "

Jute, " " " 289, " " " " " "

Castor Oil, " " " 252, there is a change in the unit of measure employed.

Onions, " " " 117, no price for 1860 to serve as a basis of computation.

For this detailed information, which is not given, I believe, in the pages of the Report, I am indebted to the personal kindness of Dr. Falkner.

<sup>3</sup> The articles include selections from the original eight groups: Food (35 articles), Cloths and Clothing (10 articles), Fuel and Lighting (7 articles), Metals and Implements (13 articles), Lumber and Building Materials (15 articles), Drugs and Chemicals (16 articles), House-furnishing Goods (10 articles), Miscellaneous (8 articles).

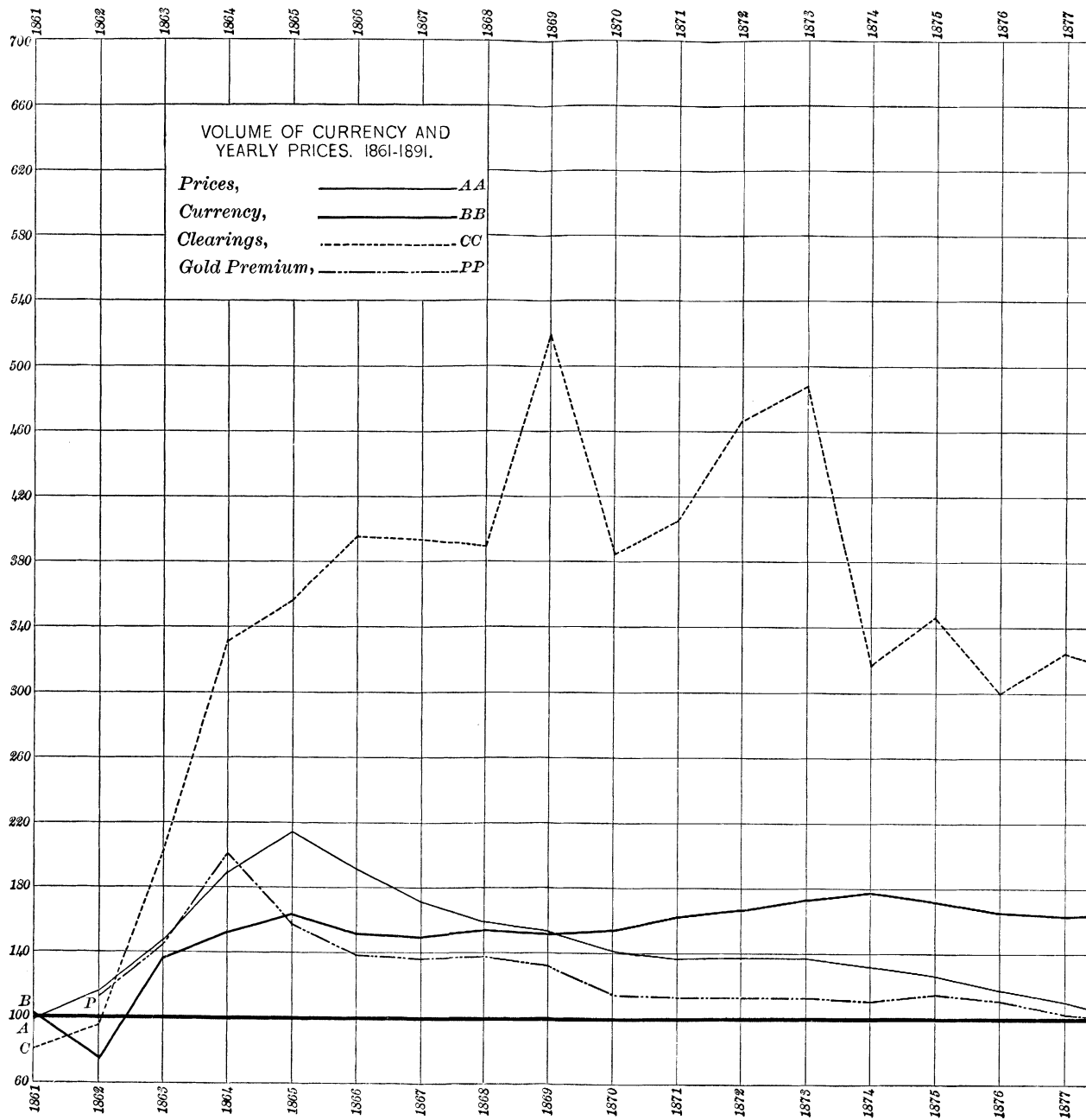
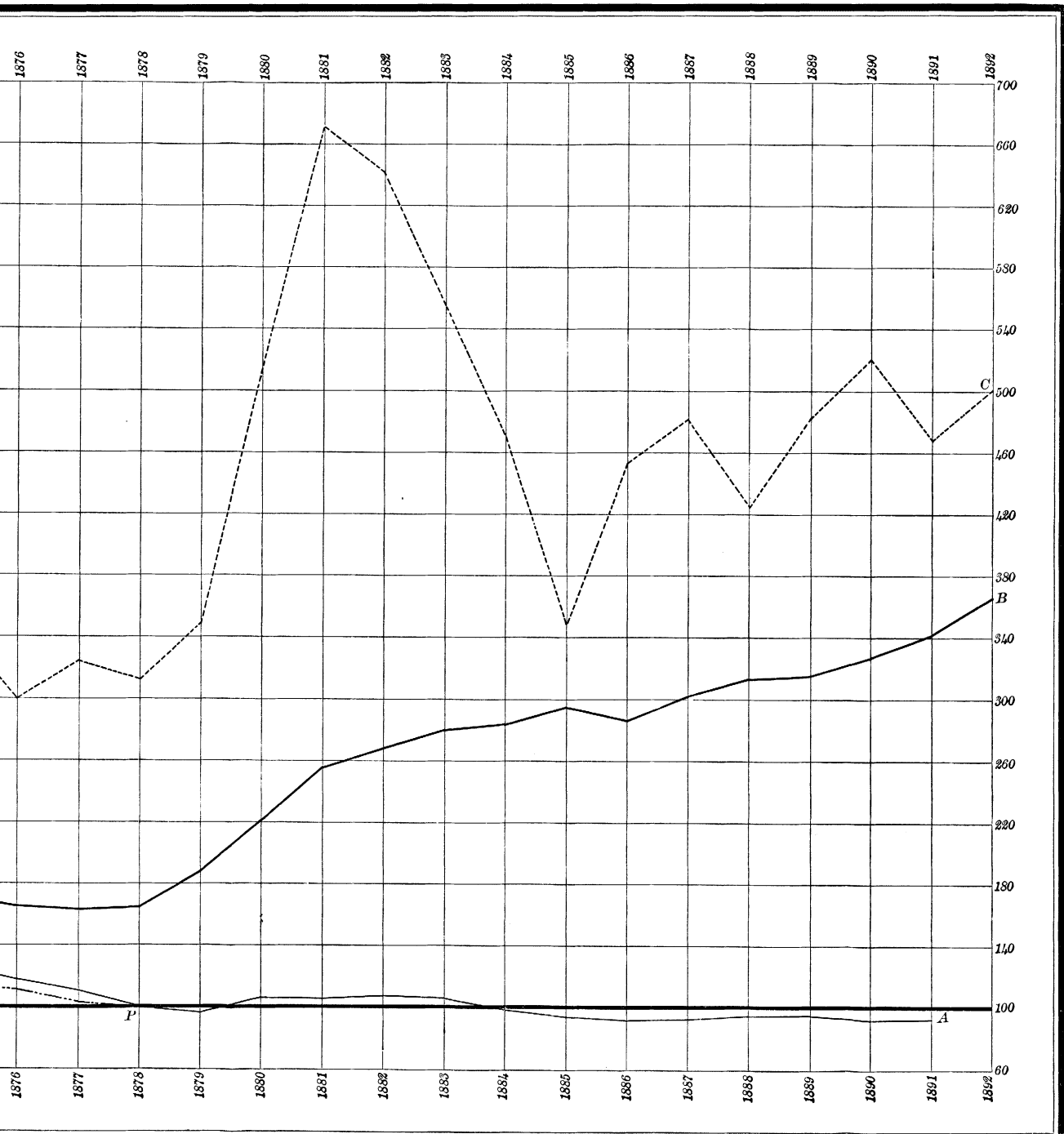
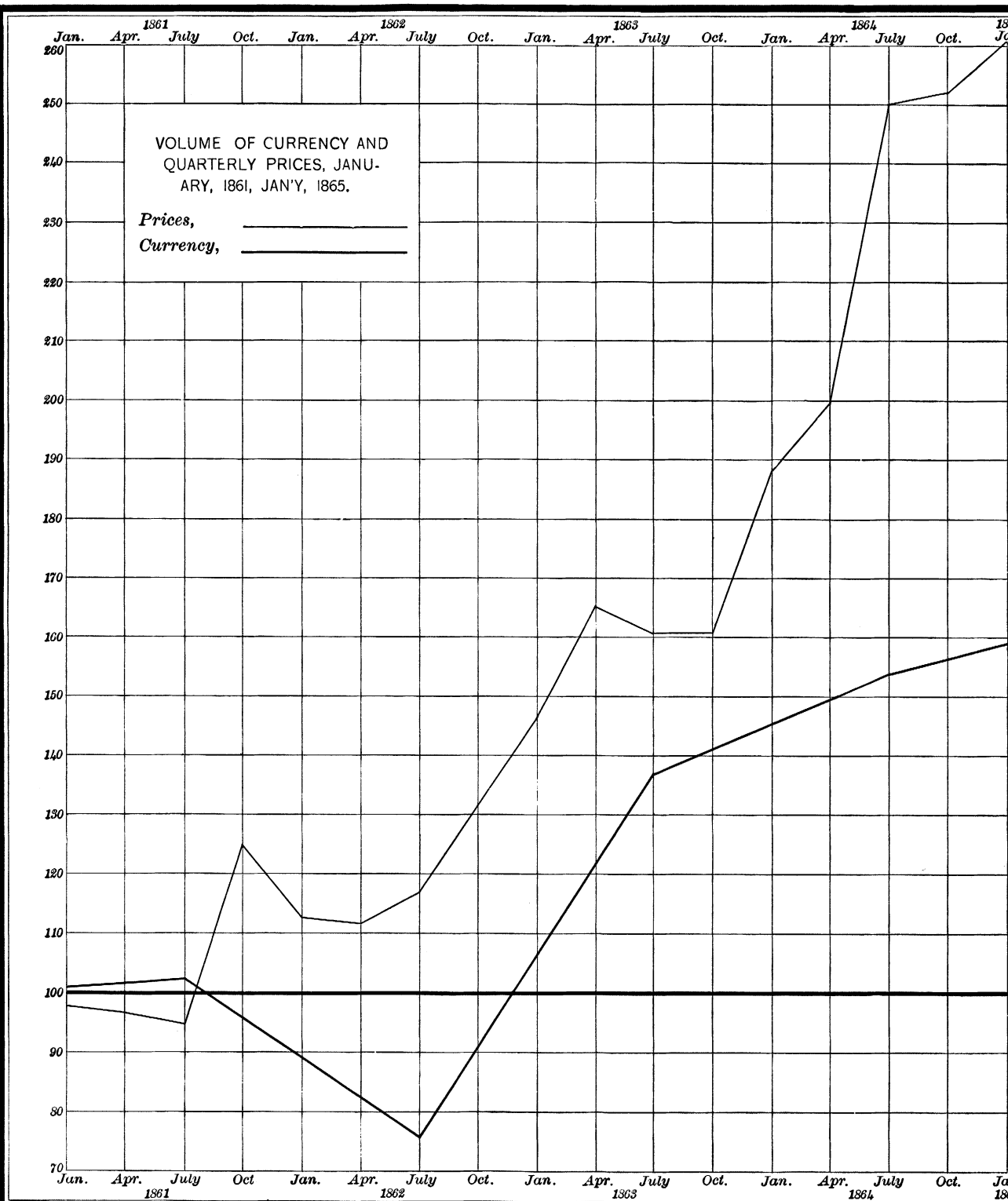




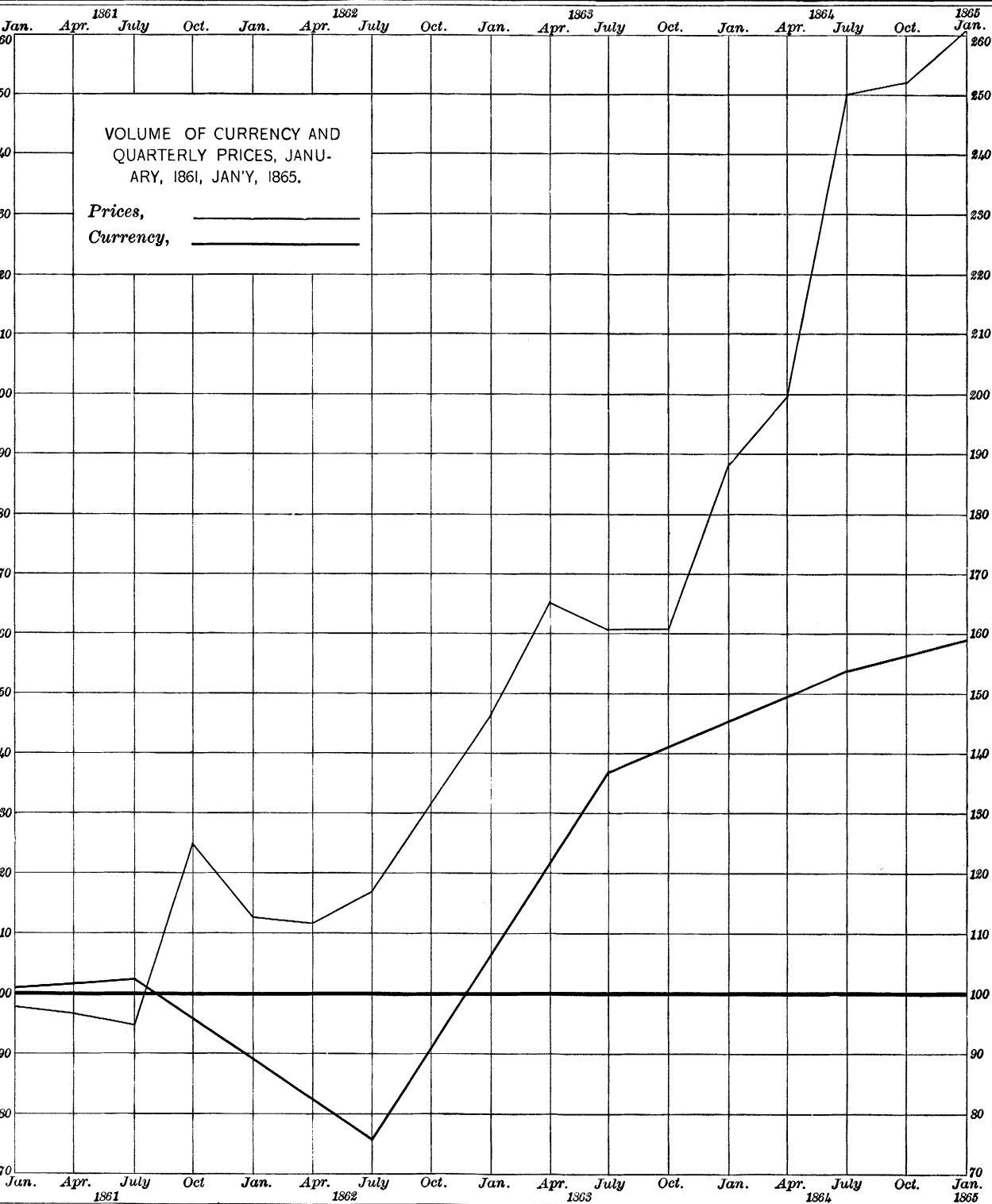
CHART I.



# CHART II.



# CHART II.



| ARTICLES                               | No. of Article     | 1860    | 1861    |           |       |           |       |           |         |           |       |
|----------------------------------------|--------------------|---------|---------|-----------|-------|-----------|-------|-----------|---------|-----------|-------|
|                                        |                    | JANUARY | JANUARY |           | APRIL |           | JULY  |           | OCTOBER |           |       |
|                                        |                    | Prices  | Price   | Per cent. | Price | Per cent. | Price | Per cent. | Price   | Per cent. |       |
| Beans .....                            | per bu.            | 1       | \$1.875 | \$1.875   | 100   | \$1.935   | 103   | \$2.25    | 120     | \$2.25    | 120   |
| Bread, Boston Crackers (1).....        | " lb.              | 2       | .07     | .075      | 107   | .075      | 107   | .07       | 100     | .07       | 100   |
| " " " (2).....                         | " "                | 3       | .085    | .10       | 118   | .105      | 124   | .11       | 129     | .11       | 129   |
| " " " extra.....                       | " "                | 4       | .12     | .14       | 117   | .14       | 117   | .14       | 117     | .14       | 117   |
| Ship biscuits .....                    | " "                | 5       | .04     | .045      | 113   | .045      | 113   | .04       | 100     | .04       | 100   |
| Butter .....                           | " "                | 6       | .21     | .17       | 81    | .18       | 86    | .13       | 62      | .135      | 64    |
| Cheese.....                            | " "                | 7       | .10     | .10       | 100   | .09       | 90    | .06       | 60      | .06       | 60    |
| Coffee, Rio, fair .....                | " "                | 8       | .115    | .115      | 100   | .12       | 104   | .12       | 104     | .155      | 135   |
| Eggs .....                             | " doz.             | 9       | .26     | .18       | 69    | .155      | 60    | .112      | 43      | .13       | 50    |
| Fish, Cod .....                        | " lb.              | 10      | .04     | .05       | 125   | .05       | 125   | .05       | 125     | .05       | 125   |
| Flour, rye.....                        | " bbl.             | 11      | 4.00    | 3.70      | 93    | 3.80      | 95    | 3.00      | 75      | 3.50      | 88    |
| Fruit, apples, dried.....              | " lb.              | 12      | .0775   | .06       | 77    | .04       | 52    | .08       | 103     | .06       | 77    |
| " currants, Zante.....                 | " "                | 13      | .06     | .045      | 75    | .045      | 75    | .04       | 67      | .095      | 158   |
| " raisins .....                        | " box              | 14      | 2.30    | 2.05      | 89    | 1.575     | 89    | 1.15      | 50      | 2.35      | 102   |
| Lard .....                             | " lb.              | 15      | .105    | .10       | 95    | .09       | 86    | .08       | 76      | .08       | 76    |
| Meal, corn, yellow.....                | " bbl.             | 16      | 4.15    | 3.50      | 84    | 3.75      | 90    | 3.00      | 72      | 3.05      | 73    |
| Meat, beef, loins.....                 | " lb.              | 17      | .18     | .16       | 89    | .16       | 89    | .15       | 83      | .15       | 83    |
| " " salt, mess.....                    | " bbl.             | 18      | 11.50   | 10.50     | 91    | 10.50     | 91    | 9.50      | 83      | 11.00     | 96    |
| " " ribs .....                         | " lb.              | 19      | .15     | .14       | 93    | .15       | 100   | .14       | 93      | .13       | 87    |
| " mutton .....                         | " "                | 20      | .10     | .11       | 110   | .11       | 110   | .10       | 100     | .09       | 90    |
| " pork, salt, mess.....                | " bbl.             | 21      | 16.50   | 16.75     | 102   | 18.00     | 109   | 16.00     | 97      | 15.00     | 91    |
| Molasses, New Orleans prime.....       | " gal.             | 22      | .53     | .37       | 70    | 3.75      | 71    | .36       | 68      | .55       | 104   |
| " Porto Rico, best.....                | " "                | 23      | .38     | .35       | 92    | .33       | 89    | .27       | 71      | .45       | 118   |
| Salt, Ashton's.....                    | per 224 lbs.       | 24      | 1.95    | 1.60      | 82    | 1.60      | 82    | 1.60      | 82      | 1.65      | 85    |
| " " Liverpool, fine.....               | " "                | 25      | 1.925   | 1.60      | 83    | 1.60      | 83    | 1.60      | 83      | 1.65      | 86    |
| " Turk's Is.....                       | per bu.            | 26      | .20     | .17       | 85    | .19       | 95    | .20       | 100     | .24       | 120   |
| Spices, nutmegs .....                  | " lb.              | 27      | .42     | .38       | 90    | .40       | 95    | .41       | 98      | .475      | 113   |
| " pepper, whole, Sumatra.....          | " "                | 28      | .08275  | .08       | 97    | .085      | 103   | .082      | 98      | .112      | 135   |
| Starch, corn.....                      | " "                | 29      | .0765   | .076      | 99    | .076      | 99    | .076      | 99      | .072      | 94    |
| Sugar, fair, refining.....             | " "                | 30      | .0725   | .053      | 73    | .047      | 65    | .046      | 63      | .077      | 106   |
| " Havana, brown.....                   | " "                | 31      | .08     | .057      | 71    | .053      | 66    | .052      | 65      | .08       | 100   |
| " refined, crushed and granulated..... | " "                | 32      | .10     | .083      | 83    | .08       | 80    | .077      | 77      | .108      | 108   |
| Tallow, prime, city, in hhds.....      | " "                | 33      | .1025   | .085      | 83    | .097      | 95    | .08       | 78      | .085      | 83    |
| Vegetables, fresh potatoes, white..... | " bbl.             | 34      | 1.75    | 1.75      | 100   | 2.25      | 129   | 2.00      | 114     | 2.00      | 114   |
| " " " ".....                           | " bu.              | 35      | .575    | .45       | 78    | .475      | 83    | .575      | 100     | .425      | 74    |
| Carpets, Brussels, etc.....            | " yd.              | 36      | 1.30    | 1.20      | 92    | 1.25      | 96    | 1.25      | 96      | 1.25      | 96    |
| " Ingrain.....                         | " "                | 37      | .7077   | .717      | 101   | .672      | 95    | .673      | 95      | .655      | 93    |
| " Wilton.....                          | " "                | 38      | 1.85    | 1.80      | 97    | 1.85      | 100   | 1.85      | 100     | 1.85      | 100   |
| Cotton, Upland, middling.....          | " lb.              | 39      | .11     | .12       | 109   | .128      | 116   | .147      | 134     | .215      | 195   |
| Drillings.....                         | " yd.              | 40      | .0846   | .08       | 95    | .08       | 95    | .08       | 95      | .09       | 106   |
| Leather, harness .....                 | " lb.              | 41      | .35     | .33       | 95    | .31       | 89    | .30       | 86      | .35       | 100   |
| Print cloths.....                      | " yd.              | 42      | .05375  | .046      | 86    | .042      | 78    | .041      | 76      | .056      | 104   |
| " " " ".....                           | " "                | 43      | .05625  | .047      | 84    | .043      | 76    | .045      | 80      | .06       | 107   |
| Sheetings.....                         | " "                | 44      | .08     | .082      | 103   | .082      | 103   | .084      | 105     | .108      | 135   |
| Shirtings.....                         | " "                | 45      | .1457   | .14       | 96    | .14       | 96    | .14       | 96      | .15       | 103   |
| Candles .....                          | " lb.              | 46      | .27     | .26       | 96    | .26       | 96    | .26       | 96      | .26       | 96    |
| Coal, 1.....                           | " ton              | 47      | 3.15    | 3.10      | 98    | 3.25      | 103   | 3.00      | 95      | 3.40      | 108   |
| " 2.....                               | " "                | 48      | 3.80    | 4.00      | 105   | 3.55      | 93    | 3.70      | 97      | 3.70      | 97    |
| " 4.....                               | " "                | 49      | 3.70    | 4.30      | 116   | 4.10      | 111   | 3.60      | 97      | 3.80      | 103   |
| " 7.....                               | " "                | 50      | 3.90    | 4.55      | 117   | 3.70      | 95    | 3.85      | 99      | 3.80      | 97    |
| " 8.....                               | " "                | 51      | 5.00    | 5.40      | 108   | 4.80      | 96    | 4.60      | 92      | 4.85      | 97    |
| Matches.....                           | per gross          | 52      | .48     | .48       | 100   | .48       | 100   | .48       | 100     | .48       | 100   |
| Butts.....                             | per pair. per doz. | 53      | .57     | .51       | 89    | .51       | 89    | .51       | 89      | .51       | 89    |
| Copper, 1.....                         | " lb.              | 54      | .235    | .19       | 81    | .19       | 81    | .18       | 77      | .205      | 87    |
| " 2.....                               | " "                | 55      | .295    | .295      | 100   | .275      | 93    | .275      | 93      | .275      | 93    |
| Iron wire .....                        | " "                | 56      | .052    | .052      | 100   | .052      | 100   | .052      | 100     | .052      | 100   |
| Lead .....                             | per 100 lbs.       | 57      | .5775   | 6.50      | 113   | 6.50      | 113   | 6.50      | 113     | 7.00      | 121   |
| " " " ".....                           | " "                | 58      | 5.88    | 5.50      | 94    | 5.50      | 94    | 4.90      | 83      | 5.80      | 199   |
| " " " ".....                           | " "                | 59      | 6.00    | 6.25      | 104   | 6.50      | 108   | 6.50      | 108     | 7.00      | 117   |
| Quicksilver .....                      | per lb.            | 60      | .4875   | .552      | 113   | .53       | 109   | .48       | 98      | .47       | 96    |
| Manilla.....                           | " "                | 61      | .0825   | .08       | 97    | .087      | 105   | .077      | 95      | .075      | 91    |
| Rope .....                             | " "                | 62      | .0925   | .....     | ..... | .10       | 108   | .097      | 105     | .....     | ..... |
| Spelter .....                          | " "                | 63      | .0525   | .047      | 90    | .047      | 90    | .042      | 80      | .045      | 86    |
| Wood-screws .....                      | per gross          | 64      | .222    | .259      | 117   | .259      | 117   | .259      | 117     | .259      | 117   |
| Zinc .....                             | per lb.            | 65      | .07     | .065      | 93    | .07       | 100   | .07       | 100     | .072      | 103   |
| Brick.....                             | " M.               | 66      | 5.00    | 4.50      | 90    | 4.00      | 80    | 3.50      | 70      | 3.75      | 75    |
| Cement, Rosendale.....                 | " bbl.             | 67      | .80     | 1.00      | 125   | .90       | 113   | .90       | 113     | .90       | 113   |
| Chestnut.....                          | per M. ft.         | 68      | 12.00   | 12.50     | 104   | 13.00     | 108   | 13.00     | 108     | 13.00     | 108   |
| Hemlock .....                          | " "                | 69      | 6.00    | 8.00      | 133   | 8.00      | 133   | 8.00      | 133     | 8.00      | 133   |
| Lime .....                             | per bbl.           | 70      | .80     | .80       | 100   | .80       | 100   | .80       | 100     | .80       | 100   |
| Oxide of zinc.....                     | " lb.              | 71      | .05     | .045      | 90    | .045      | 90    | .045      | 90      | .045      | 90    |
| Pine boards, No. 1.....                | per M. ft.         | 72      | 33.25   | 33.25     | 100   | 33.25     | 100   | 33.25     | 100     | 33.25     | 100   |
| " " " 8.....                           | " "                | 73      | 8.00    | 10.00     | 125   | 10.00     | 125   | 10.00     | 125     | 10.00     | 125   |
| Putty.....                             | per lb.            | 74      | .02     | .035      | 117   | .035      | 117   | .035      | 117     | .035      | 117   |

TABLE II.

| 1861   |           |         |           | 1862    |           |         |           |        |           |         |           | 1863    |           |         |           |         |           |       |           |
|--------|-----------|---------|-----------|---------|-----------|---------|-----------|--------|-----------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|-------|-----------|
| JULY   |           | OCTOBER |           | JANUARY |           | APRIL   |           | JULY   |           | OCTOBER |           | JANUARY |           | APRIL   |           | JULY    |           |       |           |
| Price  | Per cent. | Price   | Per cent. | Price   | Per cent. | Price   | Per cent. | Price  | Per cent. | Price   | Per cent. | Price   | Per cent. | Price   | Per cent. | Price   | Per cent. | Price | Per cent. |
| \$2.25 | 120       | \$2.25  | 120       | \$2.56  | 137       | \$2.185 | 117       | \$3.25 | 173       | \$2.875 | 153       | \$2.735 | 146       | \$2.875 | 153       | \$3.375 | 180       |       |           |
| .07    | 100       | .07     | 100       | .075    | 107       | .075    | 107       | .07    | 100       | .07     | 100       | .075    | 107       | .075    | 107       | .075    | 107       |       |           |
| .11    | 129       | .11     | 129       | .115    | 135       | .12     | 141       | .125   | 147       | .125    | 147       | .14     | 165       | .13     | 153       | .125    | 147       |       |           |
| .14    | 117       | .14     | 117       | .14     | 117       | .145    | 121       | .145   | 121       | .145    | 121       | .17     | 142       | .16     | 133       | .16     | 133       |       |           |
| .04    | 100       | .04     | 100       | .04     | 100       | .04     | 100       | .04    | 100       | .04     | 100       | .05     | 125       | .05     | 125       | .05     | 125       |       |           |
| .13    | 62        | .135    | 64        | .19     | 90        | .205    | 98        | .155   | 74        | .19     | 90        | .245    | 117       | .25     | 119       | .195    | 93        |       |           |
| .06    | 60        | .06     | 60        | .07     | 70        | .075    | 75        | .065   | 65        | .08     | 80        | .11     | 110       | .145    | 145       | .105    | 105       |       |           |
| .12    | 104       | .155    | 135       | .18     | 157       | .205    | 178       | .21    | 183       | .225    | 196       | .28     | 243       | .31     | 270       | .29     | 252       |       |           |
| .112   | 43        | .13     | 50        | .235    | 90        | .13     | 50        | .12    | 46        | .145    | 56        | .20     | 77        | .235    | 90        | .195    | 75        |       |           |
| .05    | 125       | .05     | 125       | .05     | 125       | .05     | 125       | .12    | 300       | .05     | 125       | .06     | 150       | .05     | 125       | .06     | 150       |       |           |
| 3.00   | 75        | 3.50    | 88        | 4.00    | 100       | 4.00    | 100       | 3.50   | 88        | 4.25    | 106       | 4.75    | 119       | 4.50    | 113       | 4.25    | 106       |       |           |
| .08    | 103       | .06     | 77        | .075    | 97        | .07     | 90        | .055   | 71        | .055    | 71        | .065    | 84        | .067    | 86        | .07     | 90        |       |           |
| .04    | 67        | .095    | 158       | .09     | 150       | .095    | 158       | .10    | 167       | .107    | 178       | .105    | 175       | .14     | 234       | .15     | 250       |       |           |
| 1.15   | 50        | 2.35    | 102       | 3.20    | 139       | 3.20    | 139       | 3.125  | 136       | 3.55    | 154       | 3.50    | 152       | 4.00    | 174       | 4.25    | 185       |       |           |
| .08    | 76        | .08     | 76        | .08     | 76        | .077    | 73        | .077   | 73        | .077    | 73        | .092    | 88        | .105    | 100       | .093    | 80        |       |           |
| 3.00   | 72        | 3.05    | 73        | 3.25    | 78        | 3.15    | 76        | 2.95   | 71        | 3.90    | 94        | 4.50    | 108       | 4.65    | 112       | 4.40    | 106       |       |           |
| .15    | 83        | .15     | 83        | .15     | 83        | .15     | 83        | .15    | 83        | .15     | 83        | .17     | 94        | .18     | 100       | .18     | 100       |       |           |
| 9.50   | 83        | 11.00   | 96        | 12.00   | 104       | 11.50   | 100       | 12.00  | 104       | 13.00   | 113       | 12.50   | 109       | 13.00   | 113       | 11.50   | 100       |       |           |
| .14    | 93        | .13     | 87        | .13     | 87        | .13     | 87        | .13    | 87        | .13     | 87        | .14     | 93        | .15     | 100       | .15     | 100       |       |           |
| .10    | 100       | .09     | 90        | .10     | 100       | .10     | 100       | .09    | 90        | .10     | 100       | .10     | 100       | .125    | 125       | .12     | 120       |       |           |
| 16.00  | 97        | 15.00   | 91        | 12.375  | 75        | 12.625  | 77        | 10.75  | 65        | 11.75   | 71        | 14.25   | 86        | 16.25   | 99        | 14.00   | 85        |       |           |
| .36    | 68        | .55     | 104       | .55     | 104       | .45     | 82        | .....  | ...       | .48     | 91        | .56     | 106       | .56     | 106       | .50     | 94        |       |           |
| .27    | 71        | .45     | 118       | .40     | 105       | .38     | 100       | .37    | 95        | .50     | 132       | .48     | 126       | .45     | 118       | .53     | 192       |       |           |
| 1.60   | 82        | 1.65    | 85        | 1.70    | 87        | 1.80    | 92        | 1.80   | 92        | 2.05    | 105       | 2.15    | 110       | 2.80    | 144       | 2.70    | 138       |       |           |
| 1.60   | 83        | 1.65    | 86        | 1.70    | 88        | 1.80    | 94        | 1.80   | 94        | 2.05    | 106       | 2.15    | 112       | 2.80    | 145       | 2.70    | 140       |       |           |
| .20    | 100       | .24     | 120       | .20     | 100       | .24     | 120       | .30    | 150       | .31     | 155       | .30     | 150       | .37     | 185       | .42     | 210       |       |           |
| .41    | 98        | .475    | 113       | .60     | 143       | .675    | 161       | .65    | 155       | .68     | 162       | .80     | 190       | .875    | 208       | .80     | 190       |       |           |
| .082   | 98        | .112    | 135       | .155    | 187       | .16     | 193       | .175   | 211       | .20     | 242       | .23     | 270       | .27     | 326       | .265    | 320       |       |           |
| .076   | 99        | .072    | 94        | .072    | 94        | .072    | 94        | .072   | 94        | .076    | 99        | .085    | 111       | .09     | 118       | .085    | 111       |       |           |
| .046   | 63        | .077    | 106       | .077    | 106       | .073    | 101       | .073   | 101       | .087    | 120       | .095    | 131       | .097    | 134       | .102    | 141       |       |           |
| .052   | 65        | .08     | 100       | .08     | 100       | .082    | 103       | .077   | 96        | .095    | 119       | .097    | 125       | .101    | 126       | .107    | 134       |       |           |
| .077   | 77        | .108    | 108       | .11     | 110       | .102    | 102       | .105   | 105       | .128    | 128       | .132    | 132       | .145    | 145       | .147    | 147       |       |           |
| .08    | 78        | .085    | 83        | .095    | 93        | .09     | 88        | .095   | 93        | .112    | 109       | .103    | 100       | .115    | 112       | .112    | 107       |       |           |
| 2.00   | 114       | 2.00    | 114       | 2.25    | 129       | 2.25    | 129       | 1.75   | 100       | 2.25    | 129       | 2.125   | 121       | 1.875   | 107       | 2.25    | 129       |       |           |
| .575   | 100       | .425    | 74        | .45     | 78        | .50     | 87        | .425   | 74        | .425    | 74        | .45     | 78        | .525    | 91        | .525    | 91        |       |           |
| 1.25   | 96        | 1.25    | 96        | 1.30    | 100       | 1.30    | 100       | 1.40   | 108       | 1.50    | 115       | 1.75    | 135       | 2.15    | 166       | 2.00    | 162       |       |           |
| .673   | 95        | .655    | 93        | .754    | 107       | .772    | 109       | .844   | 119       | .873    | 123       | 1.05    | 148       | 1.23    | 174       | 1.175   | 166       |       |           |
| 1.85   | 100       | 1.85    | 100       | 1.95    | 105       | 1.95    | 105       | 2.00   | 108       | 2.15    | 116       | 2.45    | 132       | 2.80    | 151       | 2.80    | 151       |       |           |
| .147   | 134       | .215    | 195       | .36     | 327       | .275    | 250       | .37    | 336       | .56     | 509       | .675    | 623       | .73     | 663       | .69     | 627       |       |           |
| .08    | 95        | .09     | 106       | .123    | 145       | .123    | 145       | .133   | 157       | .247    | 292       | .261    | 307       | .332    | 392       | .261    | 307       |       |           |
| .30    | 86        | .35     | 100       | .33     | 95        | .33     | 95        | .32    | 91        | .36     | 103       | .38     | 105       | .45     | 129       | .45     | 129       |       |           |
| .041   | 76        | .056    | 104       | .057    | 106       | .067    | 125       | .083   | 154       | .135    | 251       | .15     | 279       | .16     | 298       | .14     | 260       |       |           |
| .045   | 80        | .06     | 107       | .09     | 160       | .072    | 128       | .086   | 153       | .123    | 219       | .142    | 251       | .145    | 258       | .145    | 258       |       |           |
| .084   | 105       | .108    | 135       | .131    | 164       | .13     | 163       | .15    | 187       | .23     | 287       | .28     | 250       | .35     | 437       | .33     | 412       |       |           |
| .14    | 96        | .15     | 103       | .16     | 110       | .17     | 117       | .188   | 129       | .244    | 167       | .305    | 269       | .305    | 269       | .338    | 232       |       |           |
| .26    | 96        | .26     | 96        | .25     | 93        | .24     | 89        | .24    | 89        | .24     | 89        | .26     | 96        | .27     | 100       | .27     | 100       |       |           |
| 3.00   | 95        | 3.40    | 108       | 3.00    | 95        | 2.70    | 86        | 2.60   | 83        | 2.70    | 86        | 2.90    | 92        | 5.90    | 187       | 6.00    | 190       |       |           |
| 3.70   | 97        | 3.70    | 97        | 3.70    | 97        | 3.50    | 92        | 3.55   | 93        | 3.60    | 95        | 3.75    | 99        | 5.90    | 155       | 6.40    | 168       |       |           |
| 3.60   | 97        | 3.80    | 103       | 4.00    | 108       | 3.40    | 92        | 3.35   | 91        | 3.20    | 86        | 3.80    | 102       | 5.90    | 159       | 6.25    | 169       |       |           |
| 3.85   | 99        | 3.80    | 97        | 3.85    | 99        | 3.60    | 92        | 3.65   | 94        | 3.70    | 95        | 3.90    | 100       | 5.90    | 151       | 6.50    | 167       |       |           |
| 4.60   | 92        | 4.85    | 97        | 4.85    | 97        | 6.75    | 135       | 6.10   | 122       | 9.00    | 180       | 8.00    | 160       | 7.50    | 150       | 7.50    | 150       |       |           |
| .48    | 100       | .48     | 100       | .48     | 100       | .48     | 100       | .48    | 100       | .48     | 100       | .48     | 100       | .48     | 100       | .48     | 100       |       |           |
| .51    | 89        | .51     | 89        | .51     | 89        | .51     | 89        | .64    | 112       | .76     | 133       | .76     | 133       | .76     | 133       | .80     | 140       |       |           |
| .18    | 77        | .205    | 87        | .265    | 113       | .22     | 94        | .23    | 98        | .28     | 119       | .31     | 132       | .305    | 126       | .305    | 126       |       |           |
| .275   | 93        | .275    | 93        | .275    | 93        | .305    | 103       | .305   | 103       | .305    | 103       | .38     | 129       | .425    | 144       | .40     | 136       |       |           |
| .052   | 100       | .052    | 100       | .052    | 100       | .052    | 100       | .052   | 100       | .052    | 100       | .055    | 106       | .121    | 233       | .088    | 169       |       |           |
| 6.50   | 113       | 7.00    | 121       | 8.50    | 147       | 8.50    | 147       | 8.50   | 147       | 8.75    | 152       | 10.00   | 173       | 12.00   | 208       | 12.00   | 208       |       |           |
| 4.90   | 83        | 5.80    | 199       | 7.00    | 119       | 6.75    | 115       | 6.75   | 115       | 7.125   | 121       | .80     | 136       | 9.00    | 153       | 8.375   | 142       |       |           |
| 6.50   | 108       | 7.00    | 117       | 8.50    | 142       | 8.50    | 142       | 8.50   | 142       | 8.75    | 146       | 10.00   | 167       | 10.00   | 167       | 12.00   | 200       |       |           |
| .48    | 98        | .47     | 96        | .47     | 96        | .43     | 88        | .56    | 115       | .63     | 129       | .68     | 139       | .80     | 164       | .80     | 164       |       |           |
| .077   | 95        | .075    | 91        | .10     | 121       | .107    | 130       | .102   | 124       | .12     | 145       | .125    | 152       | .18     | 218       | .142    | 172       |       |           |
| .097   | 105       | .....   | ...       | .11     | 117       | .11     | 117       | .105   | 114       | .12     | 130       | .132    | 143       | .152    | 164       | .15     | 162       |       |           |
| .042   | 80        | .045    | 86        | .057    | 109       | .05     | 95        | .06    | 114       | .043    | 82        | .075    | 143       | .085    | 162       | .077    | 147       |       |           |
| .259   | 117       | .259    | 117       | .259    | 117       | .259    | 117       | .259   | 117       | .259    | 117       | .299    | 135       | .351    | 158       | .351    | 158       |       |           |
| .07    | 100       | .072    | 103       | .072    | 103       | .072    | 103       | .072   | 103       | .09     | 129       | .102    | 145       | .125    | 179       | .115    | 164       |       |           |
| 3.50   | 70        | 3.75    | 75        | 3.75    | 75        | 4.00    | 80        | 4.00   | 80        | 4.125   | 83        | 6.00    | 120       | 6.125   | 123       | 6.00    | 120       |       |           |
| .90    | 113       | .90     | 113       | .90     | 113       | .90     | 113       | .90    | 113       | .90     | 113       | .90     | 113       | 1.20    | 150       | 1.20    | 150       |       |           |
| 13.00  | 108       | 13.00   | 108       | 14.00   | 117       | 15.00   | 125       | 16.00  | 133       | 16.00   | 133       | 16.00   | 133       | 16.00   | 133       | 16.00   | 133       |       |           |
| 8.00   | 133       | 8.00    | 133       | 10.00   | 167       | 10.00   | 167       | 11.00  | 183       | 11.50   | 192       | 12.00   | 200       | 12.00   | 200       | 12.00   | 200       |       |           |
| .80    | 100       | .80     | 100       | .....   | ...       | .825    | 103       | .55    | 69        | .70     | 88        | .85     | 106       | .85     | 106       | 1.00    | 125       |       |           |
| .045   | 90        | .045    | 90        | .045    | 90        | .045    | 90        | .045   | 90        | .045    | 90        | .045    | 90        | .065    | 130       | .065    | 130       |       |           |
| 33.25  | 100       | 33.25   | 100       | 33.25   | 100       | 34.25   | 103       | 33.25  | 100       | 34.25   | 103       | 34.25   | 103       | 41.25   | 125       | 41.25   | 125       |       |           |
| 10.00  | 125       | 10.00   | 125       | 15.00   | 188       | 15.00   | 188       | 15.00  | 188       | 15.50   | 194       | 16.00   | 200       | 16.00   | 200       | 16.00   | 200       |       |           |
| .035   | 117       | .035    | 117       | .04     | 133       | .04     | 133       | .04    | 133       | .04     | 133       | .045    | 150       | .045    | 150       | .045    | 150       |       |           |

| 1863  |           |       |           |         |           |         | 1864      |       |           |       |           |         |           |         | 1865      |      |    | No. of Article |
|-------|-----------|-------|-----------|---------|-----------|---------|-----------|-------|-----------|-------|-----------|---------|-----------|---------|-----------|------|----|----------------|
| APRIL |           | JULY  |           | OCTOBER |           | JANUARY |           | APRIL |           | JULY  |           | OCTOBER |           | JANUARY |           |      |    |                |
| Price | Per cent. | Price | Per cent. | Price   | Per cent. | Price   | Per cent. | Price | Per cent. | Price | Per cent. | Price   | Per cent. | Price   | Per cent. |      |    |                |
| 46    | \$2.875   | 153   | \$3.375   | 180     | \$2.435   | 130     | \$3.01    | 165   | \$2.75    | 147   | \$2.75    | 147     | \$2.75    | 147     | \$3.25    | 173  | 1  |                |
| 07    | .075      | 107   | .075      | 107     | .075      | 107     | .13       | 186   | .13       | 186   | .13       | 186     | .13       | 186     | .13       | 186  | 2  |                |
| 65    | .13       | 153   | .125      | 147     | .125      | 147     | .13       | 153   | .135      | 159   | .135      | 159     | .135      | 159     | .10       | 118  | 3  |                |
| 42    | .16       | 133   | .16       | 133     | .155      | 129     | .16       | 133   | .165      | 138   | .165      | 138     | .165      | 138     | .14       | 117  | 4  |                |
| 25    | .05       | 125   | .05       | 125     | .05       | 125     | .077      | 193   | .077      | 193   | .077      | 193     | .077      | 193     | .075      | 188  | 5  |                |
| 17    | .25       | 119   | .195      | 93      | .24       | 114     | .305      | 145   | .485      | 231   | .33       | 157     | .425      | 202     | .525      | 250  | 6  |                |
| 10    | .145      | 145   | .105      | 105     | .12       | 120     | .14       | 140   | .17       | 170   | .15       | 150     | .205      | 205     | .225      | 225  | 7  |                |
| 43    | .31       | 270   | .29       | 252     | .305      | 265     | .337      | 293   | .39       | 339   | .43       | 373     | .365      | 317     | .435      | 378  | 8  |                |
| 77    | .235      | 90    | .195      | 75      | .20       | 76      | .29       | 112   | .21       | 81    | .255      | 98      | .29       | 112     | .44       | 179  | 9  |                |
| 50    | .05       | 125   | .06       | 150     | .06       | 150     | .08       | 200   | .07       | 175   | .08       | 200     | .....     | ...     | .155      | 388  | 10 |                |
| 19    | 4.50      | 113   | 4.25      | 106     | 5.00      | 125     | 5.50      | 138   | 5.50      | 138   | 7.25      | 182     | 7.50      | 188     | 8.50      | 213  | 11 |                |
| 84    | .067      | 86    | .07       | 90      | .065      | 84      | .095      | 123   | .097      | 125   | .115      | 148     | .13       | 108     | .155      | 200  | 12 |                |
| 75    | .14       | 234   | .15       | 250     | .145      | 242     | .143      | 238   | .165      | 273   | .185      | 308     | .17       | 283     | .205      | 342  | 13 |                |
| 52    | 4.00      | 174   | 4.25      | 185     | 4.15      | 180     | 4.00      | 174   | 4.10      | 178   | 4.25      | 185     | 4.00      | 174     | 5.85      | 254  | 14 |                |
| 88    | .105      | 100   | .093      | 89      | .107      | 102     | .12       | 114   | .132      | 126   | .165      | 157     | .195      | 186     | .205      | 195  | 15 |                |
| 08    | 4.65      | 112   | 4.40      | 106     | 4.80      | 116     | 6.00      | 145   | 6.15      | 148   | 8.00      | 193     | 7.85      | 189     | 8.80      | 212  | 16 |                |
| 94    | .18       | 100   | .18       | 100     | .18       | 100     | .19       | 106   | .25       | 139   | .28       | 155     | .27       | 150     | .35       | 194  | 17 |                |
| 09    | 13.00     | 113   | 11.50     | 100     | 12.00     | 104     | 12.25     | 107   | 11.00     | 95    | 25.00     | 217     | 15.00     | 130     | 19.00     | 165  | 18 |                |
| 93    | .15       | 100   | .15       | 100     | .15       | 100     | .16       | 107   | .22       | 147   | .23       | 153     | .22       | 147     | .28       | 187  | 19 |                |
| 00    | .125      | 125   | .12       | 120     | .125      | 125     | .12       | 120   | .14       | 140   | .16       | 160     | .15       | 150     | .19       | 190  | 20 |                |
| 86    | 16.25     | 99    | 14.00     | 85      | 14.25     | 86      | 19.50     | 118   | 24.00     | 145   | 45.50     | 276     | 42.00     | 254     | 35.00     | 212  | 21 |                |
| 06    | .56       | 106   | .50       | 94      | .60       | 113     | .70       | 132   | .85       | 160   | 1.15      | 217     | 1.65      | 311     | 1.50      | 283  | 22 |                |
| 26    | .45       | 118   | .53       | 192     | .625      | 164     | .65       | 171   | .85       | 224   | 1.10      | 289     | .85       | 223     | 1.10      | 289  | 23 |                |
| 10    | 2.80      | 144   | 2.70      | 138     | 2.55      | 131     | 2.80      | 144   | 3.40      | 174   | 4.50      | 231     | 5.00      | 256     | 4.75      | 244  | 24 |                |
| 12    | 2.80      | 145   | 2.70      | 140     | 2.55      | 133     | 2.80      | 145   | 3.40      | 177   | 4.50      | 234     | 5.00      | 260     | 4.75      | 247  | 25 |                |
| 50    | .37       | 185   | .42       | 210     | .44       | 220     | .48       | 240   | .50       | 250   | .60       | 300     | 1.00      | 500     | .66       | 330  | 26 |                |
| 90    | .875      | 208   | .80       | 196     | .775      | 185     | .90       | 214   | 1.375     | 328   | 1.80      | 429     | 1.60      | 381     | 1.80      | 429  | 27 |                |
| 79    | .27       | 326   | .265      | 320     | .255      | 308     | .29       | 350   | .41       | 494   | .46       | 556     | .35       | 423     | .45       | 544  | 28 |                |
| 11    | .09       | 118   | .085      | 111     | .085      | 111     | .10       | 131   | .108      | 141   | .117      | 153     | .126      | 165     | .135      | 176  | 29 |                |
| 31    | .097      | 134   | .102      | 141     | .115      | 159     | .12       | 166   | .15       | 159   | .195      | 166     | .16       | 207     | .177      | 269  | 30 |                |
| 25    | .101      | 126   | .107      | 134     | .116      | 145     | .129      | 161   | .156      | 195   | .216      | 270     | .185      | 231     | .192      | 240  | 31 |                |
| 32    | .145      | 145   | .147      | 147     | .146      | 146     | .17       | 170   | .18       | 180   | .30       | 300     | .255      | 255     | .285      | 285  | 32 |                |
| 00    | .115      | 112   | .112      | 107     | .112      | 107     | .129      | 126   | .127      | 124   | .17       | 166     | .147      | 143     | .18       | 176  | 33 |                |
| 21    | 1.875     | 107   | 2.25      | 129     | 2.50      | 143     | 2.25      | 129   | 3.75      | 214   | 6.00      | 343     | 3.00      | 171     | 4.25      | 243  | 34 |                |
| 78    | .525      | 91    | .525      | 91      | .50       | 86      | .625      | 109   | .925      | 161   | 1.15      | 200     | .80       | 139     | .95       | 165  | 35 |                |
| 35    | 2.15      | 166   | 2.00      | 162     | 1.90      | 146     | 2.15      | 165   | 2.25      | 173   | 3.50      | 270     | 3.50      | 270     | 3.50      | 270  | 36 |                |
| 48    | 1.23      | 174   | 1.175     | 166     | 1.09      | 151     | 1.26      | 178   | 1.39      | 196   | 2.11      | 298     | 1.77      | 250     | 1.844     | 261  | 37 |                |
| 32    | 2.80      | 151   | 2.80      | 151     | 2.65      | 143     | 3.00      | 162   | 3.20      | 173   | 5.00      | 270     | 5.00      | 270     | 5.00      | 270  | 38 |                |
| 23    | .73       | 663   | .69       | 627     | .845      | 768     | .81       | 736   | .76       | 709   | 1.54      | 1127    | 1.20      | 1090    | 1.20      | 1090 | 39 |                |
| 07    | .332      | 392   | .261      | 307     | .342      | 404     | .38       | 449   | .38       | 449   | .59       | 697     | .617      | 729     | .57       | 674  | 40 |                |
| 05    | .45       | 129   | .45       | 129     | .46       | 131     | .50       | 143   | .54       | 151   | .58       | 165     | .60       | 171     | .60       | 171  | 41 |                |
| 79    | .16       | 298   | .14       | 260     | .158      | 294     | .17       | 316   | .161      | 299   | .318      | 592     | .258      | 480     | .288      | 536  | 42 |                |
| 51    | .145      | 258   | .145      | 258     | .157      | 279     | .17       | 302   | .162      | 288   | .295      | 524     | .32       | 569     | .27       | 480  | 43 |                |
| 50    | .35       | 437   | .33       | 412     | .35       | 427     | .40       | 500   | .38       | 475   | .66       | 825     | .54       | 675     | .57       | 712  | 44 |                |
| 09    | .305      | 209   | .338      | 232     | .345      | 237     | .388      | 266   | .413      | 283   | .681      | 467     | .447      | 307     | .599      | 411  | 45 |                |
| 96    | .27       | 100   | .27       | 100     | .27       | 100     | .27       | 100   | .27       | 109   | .28       | 104     | .40       | 148     | .40       | 148  | 46 |                |
| 92    | 5.90      | 187   | 6.00      | 190     | 6.00      | 190     | 6.25      | 198   | .....     | ...   | 9.25      | 262     | 7.25      | 230     | 8.50      | 270  | 47 |                |
| 99    | 5.90      | 155   | 6.40      | 168     | 7.75      | 204     | 8.75      | 230   | .....     | ...   | 10.00     | 263     | 8.50      | 224     | 9.50      | 250  | 48 |                |
| 02    | 5.90      | 159   | 6.25      | 169     | 7.25      | 193     | 8.00      | 216   | .....     | ...   | 9.75      | 263     | 8.50      | 229     | 9.00      | 243  | 49 |                |
| 00    | 5.90      | 151   | 6.50      | 167     | 7.85      | 213     | 9.50      | 244   | .....     | ...   | 10.25     | 263     | 8.75      | 224     | 9.50      | 213  | 50 |                |
| 60    | 7.50      | 150   | 7.50      | 150     | 8.00      | 160     | 8.65      | 173   | 9.00      | 180   | 9.965     | 199     | 11.66     | 233     | 12.81     | 256  | 51 |                |
| 00    | .48       | 100   | .48       | 100     | .48       | 100     | .48       | 100   | .48       | 100   | 1.00      | 208     | 1.00      | 208     | 1.00      | 208  | 52 |                |
| 33    | .76       | 133   | .80       | 140     | .80       | 140     | 1.02      | 179   | 1.18      | 207   | 1.52      | 267     | 1.76      | 309     | 1.76      | 309  | 53 |                |
| 32    | .395      | 126   | .395      | 126     | .325      | 138     | .377      | 160   | .405      | 157   | .465      | 198     | .47       | 200     | .49       | 208  | 54 |                |
| 29    | .425      | 144   | .40       | 136     | .38       | 128     | .48       | 163   | .525      | 178   | .575      | 195     | .70       | 237     | .65       | 220  | 55 |                |
| 06    | .121      | 233   | .088      | 169     | .071      | 136     | .11       | 212   | .14       | 212   | .11       | 212     | .148      | 285     | .137      | 263  | 56 |                |
| 73    | 12.00     | 208   | 12.00     | 208     | 11.00     | 190     | 13.50     | 234   | 15.50     | 268   | 21.00     | 364     | 20.00     | 346     | 20.00     | 346  | 57 |                |
| 36    | 9.00      | 153   | 8.375     | 142     | 8.50      | 145     | 10.75     | 183   | 11.62     | 198   | 14.50     | 247     | 14.50     | 247     | 15.00     | 257  | 58 |                |
| 67    | 10.00     | 167   | 12.00     | 200     | 11.00     | 183     | 13.50     | 225   | 15.50     | 258   | 21.00     | 350     | 20.00     | 367     | 20.00     | 367  | 59 |                |
| 39    | .80       | 164   | .80       | 164     | .....     | ...     | .78       | 160   | .90       | 187   | 1.23      | 256     | 1.90      | 389     | 1.25      | 256  | 60 |                |
| 52    | .18       | 218   | .142      | 172     | .152      | 184     | .162      | 196   | .19       | 230   | .21       | 255     | .25       | 303     | .235      | 285  | 61 |                |
| 43    | .152      | 164   | .15       | 162     | .142      | 154     | .152      | 164   | .152      | 164   | .152      | 164     | .19       | 205     | .185      | 200  | 62 |                |
| 43    | .085      | 162   | .077      | 147     | .085      | 162     | .092      | 175   | .125      | 238   | .175      | 333     | .135      | 257     | .15       | 286  | 63 |                |
| 35    | .351      | 158   | .351      | 158     | .263      | 118     | .351      | 158   | .351      | 158   | .478      | 215     | .478      | 215     | .478      | 215  | 64 |                |
| 45    | .125      | 179   | .115      | 164     | .11       | 155     | .12       | 171   | .15       | 214   | .25       | 355     | .18       | 255     | .20       | 285  | 65 |                |
| 20    | 6.125     | 123   | 6.00      | 120     | 6.50      | 130     | 9.00      | 180   | 7.50      | 150   | 7.00      | 140     | 9.50      | 190     | 9.25      | 185  | 66 |                |
| 13    | 1.20      | 150   | 1.20      | 150     | 1.20      | 150     | 1.20      | 150   | 1.40      | 175   | 1.50      | 188     | 1.60      | 200     | 1.60      | 200  | 67 |                |
| 33    | 16.00     | 133   | 16.00     | 133     | 16.00     | 133     | 16.00     | 133   | 16.00     | 133   | 16.00     | 133     | 16.00     | 133     | 16.00     | 133  | 68 |                |
| 00    | 12.00     | 200   | 12.00     | 200     | 12.00     | 200     | 12.00     | 200   | 12.00     | 200   | 12.00     | 200     | 12.00     | 200     | 12.00     | 200  | 69 |                |
| 06    | .85       | 106   | 1.00      | 125     | 1.15      | 144     | 1.05      | 131   | 1.35      | 169   | 1.00      | 125     | 1.25      | 156     | 1.50      | 188  | 70 |                |
| 90    | .065      | 130   | .065      | 130     | .062      | 125     | .065      | 130   | .07       | 140   | .085      | 170     | .09       | 180     | .09       | 180  | 71 |                |
| 03    | 41.25     | 125   | 41.25     | 125     | 46.25     | 139     | 46.25     | 139   | 51.25     | 154   | 61.25     | 184     | 61.25     | 184     | 61.25     | 184  | 72 |                |
| 00    | 16.00     | 200   | 16.00     | 200     | 16.00     | 200     | 16.00     | 200   | 16.006    |       |           |         |           |         |           |      |    |                |

|                                 |   |                    |     |        |       |     |       |     |       |     |       |     |
|---------------------------------|---|--------------------|-----|--------|-------|-----|-------|-----|-------|-----|-------|-----|
| Ingrain.....                    | " | "                  | 37  | .7077  | .717  | 101 | .672  | 95  | .673  | 95  | .655  | 93  |
| " Wilton.....                   | " | "                  | 38  | 1.85   | 1.80  | 97  | 1.85  | 100 | 1.85  | 100 | 1.85  | 100 |
| Cotton, Upland, middling.....   | " | lb.                | 39  | .11    | .12   | 109 | .128  | 116 | .147  | 134 | .215  | 195 |
| Drillings.....                  | " | yd.                | 40  | .0846  | .08   | 95  | .08   | 95  | .08   | 95  | .09   | 106 |
| Leather, harness.....           | " | lb.                | 41  | .35    | .33   | 95  | .31   | 89  | .30   | 86  | .35   | 100 |
| Print cloths.....               | " | yd.                | 42  | .05375 | .046  | 86  | .042  | 78  | .041  | 76  | .056  | 104 |
| " ".....                        | " | "                  | 43  | .05625 | .047  | 84  | .043  | 76  | .045  | 80  | .06   | 107 |
| Sheetings.....                  | " | "                  | 44  | .08    | .082  | 103 | .082  | 103 | .084  | 105 | .108  | 135 |
| Shirtings.....                  | " | "                  | 45  | .1457  | .14   | 96  | .14   | 96  | .14   | 96  | .15   | 103 |
| Candles.....                    | " | lb.                | 46  | .27    | .26   | 96  | .26   | 96  | .26   | 96  | .26   | 96  |
| Coal, 1.....                    | " | ton                | 47  | 3.15   | 3.10  | 98  | 3.25  | 103 | 3.00  | 95  | 3.40  | 108 |
| " 2.....                        | " | "                  | 48  | 3.80   | 4.00  | 105 | 3.55  | 93  | 3.70  | 97  | 3.70  | 97  |
| " 4.....                        | " | "                  | 49  | 3.70   | 4.30  | 116 | 4.10  | 111 | 3.60  | 97  | 3.80  | 103 |
| " 7.....                        | " | "                  | 50  | 3.90   | 4.55  | 117 | 3.70  | 95  | 3.85  | 99  | 3.80  | 97  |
| " 8.....                        | " | "                  | 51  | 5.00   | 5.40  | 108 | 4.80  | 96  | 4.60  | 92  | 4.85  | 97  |
| Matches.....                    |   | per gross          | 52  | .48    | .48   | 100 | .48   | 106 | .48   | 100 | .48   | 100 |
| Butts.....                      |   | per pair. per doz. | 53  | .57    | .51   | 89  | .51   | 89  | .51   | 89  | .51   | 89  |
| Copper, 1.....                  | " | lb.                | 54  | .235   | .19   | 81  | .19   | 81  | .18   | 77  | .205  | 87  |
| " 2.....                        | " | "                  | 55  | .295   | .295  | 100 | .275  | 93  | .275  | 93  | .275  | 93  |
| Iron wire.....                  | " | "                  | 56  | .052   | .052  | 100 | .052  | 100 | .052  | 100 | .052  | 100 |
| Lead.....                       |   | per 100 lbs.       | 57  | .5775  | 6.50  | 113 | 6.50  | 113 | 6.50  | 113 | 7.00  | 121 |
| " ".....                        | " | "                  | 58  | 5.88   | 5.50  | 94  | 5.50  | 94  | 4.90  | 83  | 5.80  | 199 |
| " ".....                        | " | "                  | 59  | 6.00   | 6.25  | 104 | 6.50  | 108 | 6.50  | 108 | 7.00  | 117 |
| Quicksilver.....                |   | per lb.            | 60  | .4875  | .552  | 113 | .53   | 109 | .48   | 98  | .47   | 96  |
| Manilla.....                    | " | "                  | 61  | .0825  | .08   | 97  | .087  | 105 | .077  | 95  | .075  | 91  |
| Rope.....                       | " | "                  | 62  | .0925  | ..... | ... | .10   | 108 | .097  | 105 | ..... | ... |
| Spelter.....                    | " | "                  | 63  | .0525  | .047  | 90  | .047  | 90  | .042  | 80  | .045  | 86  |
| Wood-screws.....                |   | per gross          | 64  | .222   | .259  | 117 | .259  | 117 | .259  | 117 | .259  | 117 |
| Zinc.....                       |   | per lb.            | 65  | .07    | .065  | 93  | .07   | 100 | .07   | 100 | .072  | 103 |
| Brick.....                      | " | M.                 | 66  | 5.00   | 4.50  | 90  | 4.00  | 80  | 3.50  | 70  | 3.75  | 75  |
| Cement, Rosendale.....          | " | bbl.               | 67  | .80    | 1.00  | 125 | .90   | 113 | .90   | 113 | .90   | 113 |
| Chestnut.....                   |   | per M. ft.         | 68  | 12.00  | 12.50 | 104 | 13.00 | 108 | 13.00 | 108 | 13.00 | 108 |
| Hemlock.....                    | " | "                  | 69  | 6.00   | 8.00  | 133 | 8.00  | 133 | 8.00  | 133 | 8.00  | 133 |
| Lime.....                       |   | per bbl.           | 70  | .80    | .80   | 100 | .80   | 100 | .80   | 100 | .80   | 100 |
| Oxide of zinc.....              |   | lb.                | 71  | .05    | .045  | 90  | .045  | 90  | .045  | 90  | .045  | 90  |
| Pine boards,* No. 1.....        |   | per M. ft.         | 72  | 33.25  | 33.25 | 100 | 33.25 | 100 | 33.25 | 100 | 33.25 | 100 |
| " " 8.....                      | " | "                  | 73  | 8.00   | 10.00 | 125 | 10.00 | 125 | 10.00 | 125 | 10.00 | 125 |
| Putty.....                      |   | per lb.            | 74  | .03    | .035  | 117 | .035  | 117 | .035  | 117 | .035  | 117 |
| Spruce boards.....              |   | per M. ft.         | 75  | 11.00  | 12.00 | 109 | 12.00 | 109 | 10.50 | 96  | 10.00 | 91  |
| Turpentine.....                 |   | per gal.           | 76  | .44    | .35   | 80  | .36   | 82  | .82   | 186 | 1.45  | 330 |
| Window glass (1).....           |   | per 50 ft.         | 77  | 2.20   | 2.40  | 109 | 2.40  | 109 | 2.40  | 109 | 2.40  | 109 |
| " " (2).....                    | " | "                  | 78  | 1.7275 | 1.535 | 89  | 1.56  | 90  | 1.687 | 98  | 1.815 | 105 |
| " " (3).....                    | " | "                  | 79  | 2.72   | 3.00  | 110 | 3.485 | 128 | 3.075 | 113 | 3.075 | 113 |
| " " (4).....                    | " | "                  | 80  | 2.3125 | 2.175 | 94  | 2.125 | 92  | 2.125 | 92  | 2.372 | 103 |
| Alcohol.....                    |   | per gal.           | 81  | .54    | .40   | 74  | .36   | 67  | .34   | 63  | .40   | 74  |
| Alum.....                       | " | lb.                | 82  | .0225  | .021  | 93  | .021  | 93  | .021  | 93  | .021  | 93  |
| Bichromate of Potash.....       | " | "                  | 83  | .21    | .21   | 100 | .21   | 100 | .21   | 100 | .20   | 95  |
| Blue Vitriol.....               | " | "                  | 84  | .095   | .09   | 95  | .082  | 86  | .085  | 89  | .09   | 95  |
| Brimstone.....                  | " | ton                | 85  | 45.00  | 60.00 | 133 | 43.00 | 96  | 40.00 | 89  | 40.00 | 89  |
| Copperas.....                   | " | lb.                | 86  | .01    | .012  | 120 | .012  | 120 | .012  | 120 | .011  | 110 |
| Flaxseed.....                   | " | bu.                | 87  | 1.63   | 1.45  | 89  | 1.40  | 86  | 1.50  | 92  | 1.50  | 92  |
| Linseed oil.....                | " | gal.               | 88  | .57    | .50   | 88  | .60   | 105 | .54   | 95  | .59   | 104 |
| Mercury.....                    | " | lb.                | 89  | .55    | .55   | 100 | .55   | 100 | .55   | 100 | .45   | 82  |
| Muriatic acid.....              | " | "                  | 90  | .03    | .03   | 100 | .03   | 100 | .03   | 100 | .03   | 100 |
| Opium.....                      | " | "                  | 91  | 5.75   | 4.75  | 83  | 5.25  | 91  | 5.50  | 96  | 5.75  | 100 |
| Quinine.....                    | " | oz.                | 92  | 1.10   | 1.70  | 155 | 1.90  | 173 | ..... | ... | 2.10  | 191 |
| Soda ash.....                   | " | lb.                | 93  | .02375 | .021  | 88  | .021  | 88  | .018  | 76  | .025  | 105 |
| Sugar of lead (1).....          | " | "                  | 94  | .075   | .075  | 100 | .07   | 93  | .07   | 93  | .07   | 93  |
| " " (2).....                    | " | "                  | 95  | .115   | .115  | 100 | .115  | 100 | .115  | 100 | .115  | 100 |
| Sulphuric acid.....             | " | "                  | 96  | .0275  | .03   | 110 | .03   | 110 | .03   | 110 | .03   | 110 |
| Furniture, chairs.....          | " | doz.               | 97  | 10.00  | 8.00  | 80  | 8.00  | 80  | 8.00  | 80  | 8.00  | 80  |
| " ".....                        | " | "                  | 98  | 4.50   | 4.50  | 100 | 4.50  | 100 | 4.50  | 100 | 4.50  | 100 |
| " tables.....                   | " | "                  | 99  | 12.00  | 12.00 | 100 | 12.00 | 100 | 12.00 | 100 | 12.00 | 100 |
| Pails, (1) wooden, 2 hoops..... | " | "                  | 100 | 1.40   | 1.375 | 98  | 1.375 | 98  | 1.375 | 98  | 1.375 | 98  |
| " (2) " 2 ".....                | " | "                  | 101 | 1.35   | 1.35  | 100 | 1.35  | 100 | 1.35  | 100 | 1.325 | 98  |
| " (3) " 3 ".....                | " | "                  | 102 | 1.60   | 1.60  | 100 | 1.60  | 100 | 1.60  | 100 | 1.55  | 97  |
| Tubs, (1) wooden.....           |   | per nest of 3      | 103 | 1.25   | 1.125 | 90  | 1.125 | 90  | 1.125 | 90  | 1.125 | 90  |
| " (2) ".....                    | " | " 8                | 104 | 2.00   | 1.875 | 94  | 1.875 | 94  | 1.875 | 94  | 1.875 | 94  |
| " (3) ".....                    | " | " 3                | 105 | 1.45   | 1.30  | 90  | 1.30  | 90  | 1.30  | 90  | 1.25  | 86  |
| " (4) ".....                    | " | " 8                | 106 | 2.25   | 2.00  | 89  | 2.00  | 89  | 2.00  | 89  | 1.95  | 87  |
| Powder, (1) rifle.....          |   | per 25-lb. keg     | 107 | 5.00   | 5.00  | 100 | 5.00  | 100 | 6.00  | 120 | 6.00  | 120 |
| Rubber.....                     |   | per lb.            | 108 | .55    | .55   | 100 | .375  | 68  | .45   | 82  | .425  | 77  |
| Soap.....                       | " | "                  | 109 | .085   | .097  | 114 | .095  | 112 | .10   | 118 | .12   | 141 |
| Starch, (1) Ontario.....        | " | "                  | 110 | .045   | .045  | 100 | .045  | 100 | .045  | 100 | .045  | 100 |
| " (3) pearl.....                | " | "                  | 111 | .054   | .054  | 100 | .054  | 100 | .054  | 100 | .049  | 91  |
| " (4) pure.....                 | " | "                  | 112 | .0585  | .058  | 99  | .058  | 99  | .058  | 99  | .054  | 92  |
| " (5) refined.....              | " | "                  | 113 | .063   | .063  | 100 | .063  | 100 | .063  | 100 | .058  | 92  |
| " (6) silver gloss.....         | " | "                  | 114 | .06975 | .069  | 99  | .069  | 99  | .069  | 99  | .065  | 93  |
|                                 |   |                    |     |        |       | 98  |       | 97  |       | 95  |       | 125 |

|       |     |       |      |       |      |       |     |       |     |       |     |       |     |       |     |       |     |
|-------|-----|-------|------|-------|------|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|
| .673  | 95  | .655  | 93   | .754  | 107  | .772  | 109 | .844  | 110 | .873  | 123 | 1.05  | 148 | 1.23  | 174 | 1.175 | 166 |
| 1.85  | 100 | 1.85  | 100  | 1.95  | 105  | 1.95  | 105 | 2.00  | 108 | 2.15  | 116 | 2.45  | 132 | 2.80  | 151 | 2.80  | 151 |
| .147  | 134 | .215  | 195  | .36   | 327  | .275  | 250 | .37   | 336 | .56   | 509 | .675  | 623 | .73   | 663 | .69   | 627 |
| .08   | 95  | .09   | 106  | .123  | 145  | .123  | 145 | .133  | 157 | .247  | 292 | .261  | 307 | .332  | 392 | .261  | 307 |
| .30   | 86  | .35   | 100  | .33   | 95   | .33   | 95  | .32   | 91  | .36   | 103 | .38   | 105 | .45   | 129 | .45   | 129 |
| .041  | 76  | .056  | 104  | .057  | 106  | .067  | 125 | .083  | 154 | .135  | 251 | .15   | 279 | .16   | 298 | .14   | 260 |
| .045  | 80  | .06   | 107  | .09   | 160  | .072  | 128 | .086  | 153 | .123  | 219 | .142  | 251 | .145  | 258 | .145  | 258 |
| .084  | 105 | .108  | 135  | .131  | 164  | .13   | 163 | .15   | 187 | .23   | 287 | .28   | 250 | .35   | 437 | .33   | 412 |
| .14   | 96  | .15   | 103  | .16   | 110  | .17   | 117 | .188  | 129 | .244  | 167 | .305  | 269 | .305  | 209 | .338  | 232 |
| .26   | 96  | .26   | 96   | .25   | 93   | .24   | 89  | .24   | 89  | .24   | 89  | .26   | 96  | .27   | 100 | .27   | 100 |
| 3.00  | 95  | 3.40  | 108  | 3.00  | 95   | 2.70  | 86  | 2.60  | 83  | 2.70  | 86  | 2.90  | 92  | 5.90  | 187 | 6.00  | 190 |
| 3.70  | 97  | 3.70  | 97   | 3.70  | 97   | 3.50  | 92  | 3.55  | 93  | 3.60  | 95  | 3.75  | 99  | 5.90  | 155 | 6.40  | 168 |
| 3.60  | 97  | 3.80  | 103  | 4.00  | 108  | 3.40  | 92  | 3.35  | 91  | 3.20  | 86  | 3.80  | 102 | 5.90  | 159 | 6.25  | 169 |
| 3.85  | 99  | 3.80  | 97   | 3.85  | 99   | 3.60  | 92  | 3.65  | 94  | 3.70  | 95  | 3.90  | 100 | 5.90  | 151 | 6.50  | 167 |
| 4.60  | 92  | 4.85  | 97   | 4.85  | 97   | 6.75  | 135 | 6.10  | 122 | 9.00  | 180 | 8.00  | 160 | 7.50  | 150 | 7.50  | 150 |
| .48   | 100 | .48   | 100  | .48   | 100  | .48   | 100 | .48   | 100 | .48   | 100 | .48   | 100 | .48   | 100 | .48   | 100 |
| .51   | 89  | .51   | 89   | .51   | 89   | .51   | 89  | .64   | 112 | .76   | 133 | .76   | 133 | .76   | 133 | .80   | 140 |
| .18   | 77  | .205  | 87   | .265  | 113  | .22   | 94  | .23   | 98  | .28   | 119 | .31   | 132 | .305  | 126 | .305  | 126 |
| .275  | 93  | .275  | 93   | .275  | 93   | .305  | 103 | .305  | 103 | .305  | 103 | .38   | 129 | .425  | 144 | .40   | 136 |
| .052  | 100 | .052  | 100  | .052  | 100  | .052  | 100 | .052  | 100 | .052  | 100 | .055  | 106 | .121  | 233 | .088  | 169 |
| 6.50  | 113 | 7.00  | 121  | 8.50  | 147  | 8.50  | 147 | 8.50  | 147 | 8.75  | 152 | 10.00 | 173 | 12.00 | 208 | 12.00 | 208 |
| 4.90  | 83  | 5.80  | 199  | 7.00  | 119  | 6.75  | 115 | 6.75  | 115 | 7.125 | 121 | .80   | 136 | 9.00  | 153 | 8.375 | 142 |
| 6.50  | 108 | 7.00  | 117  | 8.50  | 142  | 8.50  | 142 | 8.50  | 142 | 8.75  | 146 | 10.00 | 167 | 10.00 | 167 | 12.00 | 200 |
| .48   | 98  | .47   | 96   | .47   | 96   | .43   | 88  | .56   | 115 | .63   | 129 | .68   | 139 | .80   | 164 | .80   | 164 |
| .077  | 95  | .075  | 91   | .10   | 121  | .107  | 130 | .102  | 124 | .12   | 145 | .125  | 152 | .18   | 218 | .142  | 172 |
| .097  | 105 | ..... | .... | .11   | 117  | .11   | 117 | .105  | 114 | .12   | 130 | .132  | 143 | .152  | 164 | .15   | 162 |
| .042  | 80  | .045  | 86   | .057  | 109  | .05   | 95  | .06   | 114 | .043  | 82  | .075  | 143 | .085  | 162 | .077  | 147 |
| .259  | 117 | .259  | 117  | .259  | 117  | .259  | 117 | .259  | 117 | .259  | 117 | .299  | 135 | .351  | 158 | .351  | 158 |
| .07   | 100 | .072  | 103  | .072  | 103  | .072  | 103 | .072  | 103 | .09   | 129 | .102  | 145 | .125  | 179 | .115  | 164 |
| 3.50  | 70  | 3.75  | 75   | 3.75  | 75   | 4.00  | 80  | 4.00  | 80  | 4.125 | 83  | 6.00  | 120 | 6.125 | 123 | 6.00  | 120 |
| .90   | 113 | .90   | 113  | .90   | 113  | .90   | 113 | .90   | 113 | .90   | 113 | .90   | 113 | 1.20  | 150 | 1.20  | 150 |
| 13.00 | 108 | 13.00 | 108  | 14.00 | 117  | 15.00 | 125 | 16.00 | 133 | 16.00 | 133 | 16.00 | 133 | 16.00 | 133 | 16.00 | 133 |
| 8.00  | 133 | 8.00  | 133  | 10.00 | 167  | 10.00 | 167 | 11.00 | 183 | 11.50 | 192 | 12.00 | 200 | 12.00 | 200 | 12.00 | 200 |
| .80   | 100 | .80   | 100  | ..... | .... | .825  | 103 | .55   | 69  | .70   | 88  | .85   | 106 | .85   | 106 | 1.00  | 125 |
| .045  | 90  | .045  | 90   | .045  | 90   | .045  | 90  | .045  | 90  | .045  | 90  | .045  | 90  | .065  | 130 | .065  | 130 |
| 33.25 | 100 | 33.25 | 100  | 33.25 | 100  | 34.25 | 103 | 33.25 | 100 | 34.25 | 103 | 34.25 | 103 | 41.25 | 125 | 41.25 | 125 |
| 10.00 | 125 | 10.00 | 125  | 15.00 | 188  | 15.00 | 188 | 15.00 | 188 | 15.50 | 194 | 16.00 | 200 | 16.00 | 200 | 16.00 | 200 |
| .035  | 117 | .035  | 117  | .04   | 133  | .04   | 133 | .04   | 133 | .04   | 133 | .045  | 150 | .045  | 150 | .045  | 150 |
| 10.50 | 96  | 10.00 | 91   | 10.00 | 91   | 10.00 | 91  | 9.50  | 86  | 11.75 | 107 | 11.75 | 107 | 11.75 | 107 | 15.75 | 143 |
| .82   | 186 | 1.45  | 330  | 1.40  | 341  | .98   | 223 | 1.30  | 298 | 2.25  | 511 | 2.50  | 588 | 2.70  | 614 | 3.58  | 814 |
| 2.40  | 109 | 2.40  | 109  | 2.40  | 109  | 2.40  | 109 | 2.40  | 109 | 2.40  | 109 | 3.20  | 145 | 3.20  | 145 | 3.675 | 167 |
| 1.687 | 98  | 1.815 | 105  | 1.935 | 112  | 2.60  | 151 | 2.60  | 151 | 2.60  | 151 | 2.60  | 151 | 2.80  | 162 | 2.60  | 151 |
| 3.075 | 113 | 3.075 | 113  | 3.075 | 113  | 3.075 | 113 | 3.075 | 113 | 3.075 | 113 | 3.69  | 136 | 4.50  | 165 | 4.25  | 156 |
| 2.125 | 92  | 2.372 | 103  | 2.585 | 112  | 3.06  | 132 | 3.40  | 147 | 3.187 | 138 | 3.06  | 132 | 3.40  | 147 | 3.40  | 147 |
| .34   | 63  | .40   | 74   | .40   | 74   | .48   | 89  | .58   | 107 | .66   | 122 | .77   | 143 | .94   | 174 | .87   | 161 |
| .021  | 93  | .021  | 93   | .021  | 93   | .022  | 98  | .022  | 98  | .03   | 133 | .035  | 156 | .037  | 164 | .037  | 164 |
| .21   | 100 | .20   | 95   | .21   | 100  | .20   | 95  | .205  | 96  | .20   | 95  | .22   | 105 | .24   | 114 | .24   | 114 |
| .085  | 89  | .09   | 95   | .09   | 95   | .09   | 95  | .09   | 95  | .095  | 100 | .115  | 121 | .15   | 156 | .127  | 134 |
| 40.00 | 89  | 40.00 | 89   | 60.00 | 133  | 43.00 | 96  | 44.00 | 98  | 48.00 | 107 | 50.00 | 111 | 55.00 | 122 | 50.00 | 111 |
| .012  | 120 | .011  | 110  | .015  | 150  | .012  | 120 | .012  | 120 | .015  | 150 | .02   | 200 | .02   | 200 | .017  | 170 |
| 1.50  | 92  | 1.50  | 92   | 1.80  | 110  | 2.20  | 135 | 1.75  | 107 | 1.90  | 117 | 2.80  | 172 | 4.00  | 245 | 2.40  | 147 |
| .54   | 95  | .59   | 104  | .85   | 149  | .85   | 149 | .86   | 151 | .86   | 151 | 1.25  | 219 | 1.70  | 298 | 1.20  | 211 |
| .55   | 100 | .45   | 82   | .45   | 82   | .45   | 82  | .45   | 82  | .60   | 109 | .70   | 127 | .70   | 127 | .70   | 127 |
| .03   | 100 | .03   | 100  | .035  | 117  | .035  | 117 | .035  | 117 | .035  | 117 | .03   | 100 | .03   | 100 | .03   | 100 |
| 5.50  | 96  | 5.75  | 100  | 5.00  | 87   | 5.00  | 87  | 6.25  | 109 | 7.20  | 125 | 8.40  | 146 | 10.00 | 174 | 8.50  | 148 |
| ..... | ... | 2.10  | 101  | 2.50  | 227  | 2.25  | 205 | 2.60  | 236 | 2.85  | 259 | 2.80  | 255 | 3.15  | 286 | 2.90  | 264 |
| .018  | 76  | .025  | 105  | .028  | 118  | .027  | 114 | .025  | 105 | .027  | 114 | .03   | 126 | .033  | 139 | .033  | 139 |
| .07   | 93  | .07   | 93   | .095  | 127  | .085  | 113 | .085  | 113 | .095  | 126 | .125  | 167 | .15   | 200 | .15   | 200 |
| .115  | 100 | .115  | 100  | .12   | 104  | .115  | 100 | .12   | 104 | .16   | 139 | .18   | 157 | .26   | 226 | .20   | 174 |
| .03   | 110 | .03   | 110  | .035  | 127  | .035  | 127 | .035  | 127 | .035  | 127 | .03   | 110 | .03   | 110 | .03   | 110 |
| 8.00  | 80  | 8.00  | 80   | 8.00  | 80   | 8.00  | 80  | 8.00  | 80  | 8.00  | 80  | 8.50  | 85  | 10.50 | 105 | 10.50 | 105 |
| 4.50  | 100 | 4.50  | 100  | 4.50  | 100  | 4.50  | 100 | 4.50  | 100 | 4.50  | 100 | 4.50  | 100 | 4.50  | 100 | 4.50  | 100 |
| 12.00 | 100 | 12.00 | 100  | 12.00 | 100  | 12.00 | 100 | 12.00 | 100 | 12.00 | 100 | 12.00 | 100 | 13.50 | 113 | 13.50 | 113 |
| 1.375 | 98  | 1.375 | 98   | 1.30  | 93   | 1.30  | 93  | 1.50  | 107 | 1.70  | 121 | 1.70  | 121 | 2.10  | 150 | 1.95  | 139 |
| 1.35  | 100 | 1.325 | 98   | 1.25  | 93   | 1.25  | 93  | 1.45  | 107 | 1.60  | 119 | 1.65  | 122 | 2.05  | 132 | 1.87  | 139 |
| 1.60  | 100 | 1.55  | 97   | 1.56  | 94   | 1.50  | 94  | 1.70  | 106 | 1.90  | 119 | 2.00  | 125 | 2.35  | 147 | 2.20  | 138 |
| 1.125 | 90  | 1.125 | 90   | 1.125 | 90   | 1.125 | 90  | 1.375 | 110 | 1.50  | 120 | 1.75  | 140 | 1.85  | 148 | 1.85  | 148 |
| 1.875 | 94  | 1.875 | 94   | 1.675 | 84   | 2.00  | 100 | 2.00  | 100 | 2.25  | 113 | 2.75  | 138 | 2.85  | 142 | 2.85  | 142 |
| 1.30  | 90  | 1.25  | 86   | 1.18  | 81   | 1.30  | 90  | 1.40  | 97  | 1.525 | 105 | 1.80  | 124 | 1.85  | 127 | 1.90  | 131 |
| 2.00  | 89  | 1.95  | 87   | 1.80  | 80   | 2.22  | 99  | 2.15  | 96  | 2.35  | 104 | 2.80  | 124 | 2.85  | 127 | 2.90  | 129 |
| 6.00  | 120 | 6.00  | 120  | 7.00  | 150  | 6.00  | 120 | 6.50  | 130 | 6.50  | 130 | 6.50  | 130 | 6.75  | 135 | 6.75  | 135 |
| .45   | 82  | .425  | 77   | .48   | 87   | .50   | 91  | .575  | 105 | .67   | 122 | .875  | 159 | .85   | 155 | .725  | 132 |
| .10   | 118 | .12   | 141  | .13   | 153  | .135  | 159 | .132  | 155 | .14   | 165 | .145  | 171 | .172  | 202 | .17   | 200 |
| .045  | 100 | .045  | 100  | .045  | 100  | .045  | 100 | .045  | 100 | .049  | 109 | .058  | 129 | .063  | 140 | .058  | 129 |
| .054  | 100 | .049  | 91   | .049  | 91   | .049  | 91  | .049  | 91  | .054  | 100 | .063  | 117 | .067  | 124 | .063  | 117 |
| .058  | 99  | .054  | 92   | .054  | 92   | .054  | 92  | .054  | 92  | .058  | 99  | .067  | 115 | .072  | 123 | .067  | 115 |
| .063  | 100 | .058  | 92   | .058  | 92   | .058  | 92  | .058  | 92  | .063  | 100 | .072  | 114 | .076  | 121 | .072  | 114 |
| .069  | 99  | .065  | 93   | .065  | 93   | .065  | 93  | .065  | 93  | .069  | 99  | .078  | 112 | .083  | 119 | .078  | 112 |
|       | 95  |       | 125  |       | 113  |       | 112 |       | 117 |       | 131 |       | 145 |       | 165 |       | 161 |



|       |     |       |     |       |     |       |     |       |     |       |      |       |      |        |      |     |
|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|------|-------|------|--------|------|-----|
| 1.23  | 174 | 1.175 | 166 | 1.09  | 151 | 1.26  | 178 | 1.39  | 196 | 2.11  | 298  | 1.77  | 250  | 1.844  | 261  | 37  |
| 2.80  | 151 | 2.80  | 151 | 2.65  | 143 | 3.00  | 162 | 3.20  | 173 | 5.00  | 270  | 5.00  | 270  | 5.00   | 270  | 38  |
| .73   | 663 | .69   | 627 | .845  | 768 | .81   | 736 | .76   | 709 | 1.54  | 1127 | 1.20  | 1090 | 1.20   | 1090 | 39  |
| .332  | 392 | .261  | 397 | .342  | 404 | .38   | 449 | .38   | 449 | .59   | 697  | .617  | 729  | .57    | 674  | 40  |
| .45   | 129 | .45   | 129 | .46   | 131 | .50   | 143 | .54   | 151 | .58   | 165  | .60   | 171  | .60    | 171  | 41  |
| .16   | 298 | .14   | 260 | .158  | 294 | .17   | 316 | .161  | 299 | .318  | 592  | .258  | 480  | .288   | 536  | 42  |
| .145  | 258 | .145  | 258 | .157  | 279 | .17   | 302 | .162  | 288 | .295  | 524  | .32   | 569  | .27    | 480  | 43  |
| .35   | 437 | .33   | 412 | .35   | 427 | .40   | 500 | .38   | 475 | .66   | 825  | .54   | 675  | .57    | 712  | 44  |
| .395  | 209 | .338  | 232 | .345  | 237 | .388  | 266 | .413  | 283 | .681  | 467  | .447  | 307  | .599   | 411  | 45  |
| .27   | 100 | .27   | 100 | .27   | 100 | .27   | 100 | .27   | 100 | .28   | 104  | .40   | 148  | .40    | 148  | 46  |
| 5.90  | 187 | 6.00  | 190 | 6.00  | 190 | 6.25  | 198 | ..... | ... | 9.25  | 262  | 7.25  | 230  | 8.50   | 270  | 47  |
| 5.90  | 155 | 6.40  | 168 | 7.75  | 204 | 8.75  | 230 | ..... | ... | 10.00 | 263  | 8.50  | 224  | 9.50   | 250  | 48  |
| 5.90  | 159 | 6.25  | 169 | 7.25  | 193 | 8.00  | 216 | ..... | ... | 9.75  | 263  | 8.50  | 229  | 9.00   | 243  | 49  |
| 5.90  | 151 | 6.50  | 167 | 7.85  | 213 | 9.50  | 244 | ..... | ... | 10.25 | 263  | 8.75  | 224  | 9.50   | 213  | 50  |
| 7.50  | 150 | 7.50  | 150 | 8.00  | 160 | 8.65  | 173 | 9.00  | 180 | 9.965 | 199  | 11.66 | 233  | 12.81  | 256  | 51  |
| .48   | 100 | .48   | 100 | .48   | 100 | .48   | 100 | .48   | 100 | 1.00  | 208  | 1.00  | 208  | 1.00   | 208  | 52  |
| .76   | 133 | .80   | 140 | .80   | 140 | 1.02  | 179 | 1.18  | 207 | 1.52  | 267  | 1.76  | 309  | 1.76   | 309  | 53  |
| .305  | 126 | .305  | 126 | .325  | 138 | .377  | 160 | .405  | 157 | .465  | 198  | .47   | 200  | .49    | 208  | 54  |
| .425  | 144 | .40   | 136 | .38   | 128 | .48   | 163 | .525  | 178 | .575  | 195  | .70   | 237  | .65    | 220  | 55  |
| .121  | 233 | .088  | 169 | .071  | 136 | .11   | 212 | .14   | 212 | .11   | 212  | .148  | 285  | .137   | 263  | 56  |
| 12.00 | 208 | 12.00 | 208 | 11.00 | 190 | 13.50 | 234 | 15.50 | 268 | 21.00 | 364  | 20.00 | 346  | 20.00  | 346  | 57  |
| 9.00  | 153 | 8.375 | 142 | 8.50  | 145 | 10.75 | 183 | 11.62 | 198 | 14.50 | 247  | 14.50 | 247  | 15.00  | 257  | 58  |
| 10.00 | 167 | 12.00 | 200 | 11.00 | 183 | 13.50 | 225 | 15.50 | 258 | 21.00 | 350  | 20.00 | 367  | 20.00  | 367  | 59  |
| .80   | 164 | .80   | 164 | ..... | ... | .78   | 160 | .90   | 187 | 1.25  | 256  | 1.90  | 389  | 1.25   | 256  | 60  |
| .18   | 218 | .142  | 172 | .152  | 184 | .162  | 196 | .19   | 230 | .21   | 255  | .25   | 303  | .235   | 285  | 61  |
| .152  | 164 | .15   | 162 | .142  | 154 | .152  | 164 | .152  | 164 | .152  | 164  | .19   | 205  | .185   | 200  | 62  |
| .085  | 162 | .077  | 147 | .085  | 162 | .092  | 175 | .125  | 238 | .175  | 333  | .135  | 257  | .15    | 286  | 63  |
| .351  | 158 | .351  | 158 | .263  | 118 | .351  | 158 | .351  | 158 | .478  | 215  | .478  | 215  | .478   | 215  | 64  |
| .125  | 179 | .115  | 164 | .11   | 155 | .12   | 171 | .15   | 214 | .25   | 355  | .18   | 255  | .20    | 285  | 65  |
| 6.125 | 123 | 6.00  | 120 | 6.50  | 130 | 9.00  | 180 | 7.50  | 150 | 7.00  | 140  | 9.50  | 190  | 9.25   | 185  | 66  |
| 1.20  | 150 | 1.20  | 150 | 1.20  | 150 | 1.20  | 150 | 1.40  | 175 | 1.50  | 188  | 1.60  | 200  | 1.60   | 200  | 67  |
| 16.00 | 133 | 16.00 | 133 | 16.00 | 133 | 16.00 | 133 | 16.00 | 133 | 16.00 | 133  | 16.00 | 133  | 16.00  | 133  | 68  |
| 12.00 | 200 | 12.00 | 200 | 12.00 | 200 | 12.00 | 200 | 12.00 | 200 | 12.00 | 200  | 12.00 | 200  | 12.00  | 200  | 69  |
| .85   | 106 | 1.00  | 125 | 1.15  | 144 | 1.05  | 131 | 1.35  | 169 | 1.00  | 125  | 1.25  | 156  | 1.50   | 188  | 70  |
| .065  | 130 | .065  | 130 | .062  | 125 | .065  | 130 | .07   | 140 | .085  | 170  | .09   | 180  | .09    | 180  | 71  |
| 41.25 | 125 | 41.25 | 125 | 46.25 | 139 | 46.25 | 139 | 51.25 | 154 | 61.25 | 184  | 61.25 | 184  | 61.25  | 184  | 72  |
| 16.00 | 200 | 16.00 | 200 | 16.00 | 200 | 16.00 | 200 | 16.00 | 200 | 16.00 | 200  | 16.00 | 200  | 16.00  | 200  | 73  |
| .045  | 150 | .045  | 150 | .045  | 150 | .05   | 167 | .05   | 167 | .05   | 167  | .05   | 167  | .055   | 183  | 74  |
| 11.75 | 107 | 15.75 | 143 | 15.25 | 138 | 15.25 | 138 | 21.25 | 193 | 24.25 | 210  | 23.00 | 209  | 23.00  | 209  | 75  |
| 2.70  | 614 | 3.58  | 814 | 2.75  | 625 | 3.00  | 681 | 3.20  | 727 | 3.60  | 818  | 2.43  | 552  | 2.05   | 466  | 76  |
| 3.20  | 145 | 3.675 | 167 | 3.15  | 143 | 3.15  | 143 | 6.162 | 280 | 5.00  | 227  | 6.00  | 273  | 5.812  | 264  | 77  |
| 2.80  | 162 | 2.60  | 151 | 2.60  | 151 | 3.60  | 208 | 3.36  | 194 | 4.00  | 232  | 4.16  | 241  | 4.48   | 259  | 78  |
| 4.50  | 165 | 4.25  | 156 | 3.75  | 138 | 4.00  | 147 | 4.687 | 172 | 7.15  | 263  | 6.587 | 242  | 7.425  | 273  | 79  |
| 3.40  | 147 | 3.40  | 147 | 3.40  | 147 | 4.03  | 174 | 4.03  | 174 | 4.887 | 211  | 5.525 | 239  | 5.652  | 244  | 80  |
| .94   | 174 | .87   | 161 | 1.04  | 193 | 1.85  | 343 | 2.05  | 378 | 3.55  | 657  | 3.45  | 639  | 4.40   | 844  | 81  |
| .037  | 164 | .037  | 164 | .03   | 133 | .036  | 160 | .036  | 160 | .045  | 200  | ..... | ...  | .057   | 196  | 82  |
| .24   | 114 | .24   | 114 | .225  | 107 | .24   | 114 | .25   | 119 | .28   | 133  | .28   | 133  | .30    | 143  | 83  |
| .15   | 156 | .127  | 134 | .135  | 142 | .135  | 142 | .16   | 168 | .18   | 189  | .21   | 221  | .182   | 192  | 84  |
| 55.00 | 122 | 50.00 | 111 | 52.50 | 117 | 57.50 | 128 | 59.00 | 131 | 85.00 | 180  | 75.00 | 167  | 100.00 | 222  | 85  |
| .02   | 200 | .017  | 170 | .015  | 150 | .017  | 170 | .017  | 170 | .018  | 180  | .025  | 250  | .023   | 230  | 86  |
| 4.00  | 245 | 2.40  | 147 | 2.40  | 147 | 3.00  | 184 | 3.50  | 215 | 3.60  | 221  | 3.25  | 199  | 3.75   | 230  | 87  |
| 1.70  | 298 | 1.20  | 211 | 1.35  | 236 | 1.43  | 251 | 1.60  | 281 | 1.70  | 298  | 1.40  | 246  | 1.55   | 272  | 88  |
| .70   | 127 | .70   | 127 | .78   | 142 | .83   | 151 | 1.10  | 200 | 1.55  | 282  | 1.90  | 345  | 1.38   | 251  | 89  |
| .03   | 100 | .03   | 100 | .03   | 100 | .04   | 133 | .04   | 133 | .04   | 133  | .04   | 133  | .045   | 150  | 90  |
| 10.00 | 174 | 8.50  | 148 | 9.75  | 170 | 9.75  | 170 | 11.75 | 204 | 14.00 | 243  | 17.25 | 300  | 7.00   | 122  | 91  |
| 3.15  | 286 | 2.90  | 264 | 2.50  | 227 | 2.55  | 232 | 3.00  | 272 | 3.25  | 295  | 3.35  | 305  | 3.25   | 295  | 92  |
| .033  | 139 | .033  | 139 | .033  | 139 | .036  | 109 | .04   | 168 | .052  | 218  | .048  | 202  | .065   | 274  | 93  |
| .15   | 200 | .15   | 200 | .09   | 120 | .14   | 187 | .16   | 213 | .16   | 213  | .48   | 640  | .40    | 533  | 94  |
| .26   | 226 | .20   | 174 | .16   | 115 | .22   | 191 | .24   | 209 | .33   | 287  | .55   | 478  | .475   | 413  | 95  |
| .03   | 110 | .03   | 110 | .03   | 110 | .03   | 110 | .03   | 110 | .04   | 145  | .047  | 171  | .047   | 171  | 96  |
| 10.50 | 105 | 10.50 | 105 | 11.00 | 110 | 12.50 | 125 | 12.50 | 125 | 14.50 | 145  | 18.00 | 180  | 18.00  | 180  | 97  |
| 4.50  | 100 | 4.50  | 100 | 5.00  | 111 | 5.50  | 122 | 5.50  | 122 | 6.00  | 133  | 7.50  | 167  | 7.50   | 167  | 98  |
| 13.50 | 113 | 13.50 | 113 | 13.50 | 113 | 13.50 | 113 | 15.00 | 125 | 16.50 | 138  | 19.50 | 163  | 19.50  | 163  | 99  |
| 2.10  | 150 | 1.95  | 139 | 1.95  | 139 | 2.25  | 161 | 2.50  | 179 | 2.50  | 179  | 2.50  | 179  | 2.50   | 179  | 100 |
| 2.05  | 132 | 1.87  | 139 | 1.87  | 139 | 2.20  | 163 | 2.47  | 183 | 2.45  | 181  | 2.47  | 183  | 2.47   | 183  | 101 |
| 2.35  | 147 | 2.20  | 138 | 2.25  | 141 | 2.50  | 156 | 2.82  | 176 | 2.83  | 177  | 2.85  | 178  | 2.85   | 178  | 102 |
| 1.85  | 148 | 1.85  | 148 | 1.90  | 152 | 2.125 | 170 | 2.37  | 190 | 2.50  | 200  | 2.125 | 170  | 2.25   | 180  | 103 |
| 2.85  | 142 | 2.85  | 142 | 3.00  | 150 | 3.25  | 162 | 3.37  | 168 | 3.50  | 175  | 3.375 | 169  | 3.00   | 150  | 104 |
| 1.85  | 127 | 1.90  | 131 | 1.90  | 131 | 2.15  | 148 | 2.40  | 166 | 2.55  | 177  | 2.15  | 148  | 2.47   | 170  | 105 |
| 2.85  | 127 | 2.90  | 129 | 2.90  | 129 | 3.25  | 144 | 3.40  | 151 | 3.55  | 158  | 3.35  | 149  | 3.47   | 154  | 106 |
| 6.75  | 135 | 6.75  | 135 | 7.35  | 147 | 7.25  | 145 | 7.60  | 152 | 8.70  | 174  | 8.60  | 172  | 9.00   | 180  | 107 |
| .85   |     |       |     |       |     |       |     |       |     |       |      |       |      |        |      |     |

actual price of each article for January 1860, then the prices in January, April, July and October of each year, with the index numbers or percentages, in parallel columns. The latter are obtained by the same method as in Chart I., by taking, in each case, the January price of 1860 as the base (100 per cent.) and computing the percentage of variation above or below that figure. These percentages are then averaged,<sup>1</sup> and by charting<sup>2</sup> the resulting general averages we have the line *AA*, Chart II., representing quarterly prices from 1861 to 1865.

With this line is to be compared the volume of currency during the same period, which is indicated by the line *BB* (Chart II.). The comparison between these two lines is necessarily incomplete from the fact that while the price-line shows quarterly variations, the volume of currency is given by years, and can hardly be advantageously reduced to quarterly periods. Owing to this limitation, the second chart is useful mainly as suggesting the general features of a comparison between money and prices, and as a study of the more frequent movements of the latter. A closer comparison is impossible with the present data.

While there are, therefore, no means of knowing the quarterly fluctuations in the amount of the circulating medium, and while there is an undeniable similarity of general direction in the two lines, at the same time, so far as shown in this chart, the connection between them is by no means close or causal. The amount of increase differs: in the four years prices rise 166.3 per cent., currency 59.4 per cent.; the rate of acceleration also in the two lines is widely different, that of prices increasing rapidly as the year 1865 is approached, while the rate of increase of the currency slackens noticeably toward the end of the period. These facts, though not in themselves decisive, are yet significant as pointing to important differences in the movement of the two lines, a subject which will come up again in a later discussion of

<sup>1</sup> Arithmetically.

<sup>2</sup> The same relative scale of measurements has been used both in Charts I. and II., both dimensions being four times as great in Chart II. as in Chart I.

the possible cause of this simultaneous rise of currency and prices.<sup>1</sup>

In summing up the results thus far indicated, so far as the history of prices in the United States throws any light upon the quantity theory, it appears: (1) that that dogma, in its general theoretical form, is inapplicable as an explanation of this given set of actual conditions, (2) that so far as it may be at all valid, its influence in determining the level of prices is of far less importance than is commonly supposed, (3) that prices, from 1861 to 1891, were fixed in the main by other causes than the quantity of that kind of money which was in circulation during those years.

### III.

There is still another line in Chart I. of which no mention has yet been made, but which is often asserted to be of paramount importance in any discussion of monetary conditions. This is the line marked *CC* and indicates the movement of the transactions of the New York Clearing House in the years from 1861 to 1892.<sup>2</sup> The immense increase in the volume of transactions, a gain of 513.3 per cent. in thirty years, is the most significant and momentous fact of the entire period.

It is claimed that this increase in transactions means the necessity of an increased amount of currency to perform the exchanges. Population has increased, there has been a prodigious increase in the volume of goods produced, exchanges have greatly multiplied, and as a result the volume of the circulating medium ought to have increased, as shown in the chart. The increase of transactions indicated by the line *CC* is, therefore, the factor which accounts for the fact that prices go down while circulation increases. Since the expansion of the circulating medium has not kept pace with the rapid growth of the population and with the increase in transactions, the result necessarily

<sup>1</sup> See p. 165 below.

<sup>2</sup> The figures for New York only are used, the object of the line being merely to represent the general increase in clearing-house transactions, not to show the exact volume of clearings for the country.

has been the fall in prices. There has not been, it will be said, enough money to supply, adequately, the growing needs of the country, and the quantity of money being too small, the level of general prices fell, naturally and in accordance with the quantity theory. The increase in transactions, therefore, explains the difficulties of the entire period.

There are two objections to this argument. The first is that the wealth of a country is not necessarily in proportion to its population. An increase in population does not necessarily imply an increase in transactions, for it is a well-known fact that there are great differences in productive power among men. Compare, for example, two nations like China and the United States, or Mexico and Holland. Efficiency in production depends far more on the character of a people than on its numbers. In the individual sphere one man has a far greater influence upon production than another. The rapid growth of the lower strata of society, of the shiftless, the inefficient, the intemperate classes, forms one of the grave problems which confront society today. An increased population by no means necessitates an increased production or an increased amount of transactions. As far as concerns the question whether an increased population requires an increased quantity of money, it may be that more coin and notes are demanded for retail transactions. It is perfectly natural and probable that there should be an increase of currency as the population grows in numbers. Each man requires so much coin in his pocket for daily retail transactions. But that affects only retail trade, and it is the fall in wholesale prices that is under discussion, the fall in the great bulk of commodities which are exchanged for one another outside of and above the range of retail trade. That an increasing population requires more change in its pockets for daily cash transactions is not an explanation of the fall in wholesale prices.

The second objection is that the amount of money used in the exchanges of a country is not determined by the volume of goods produced but by production and price together. If we have in view the values of goods, then not production but pro-

duction multiplied by price might be supposed, according to the quantity theory, to determine the amount of money necessary for a given number of exchanges. It is evident that if, in 1860 the price of a yard of cotton cloth were twice that of 1891,<sup>1</sup> the volume of production might be doubled in the latter year and yet no more money be required to perform the same number of exchanges :

1860, 100,000 yards @ 10c. a yard = \$10,000  
 1891, 200,000 " @ 5c. " = 10,000

Doubling the quantity of goods, therefore, does not necessarily require any increase in the media necessary to exchange them. Increased transactions and an increased population do not necessarily mean an increase in the amount of the circulating medium required, and to adduce these two facts as sufficient reason for the fall in prices is illogical.

On the other hand, when the clearing house line is pointed to as an explanation of the failure of the quantity of money to account for the fall in prices, the very instrument is pointed out which diminishes the quantity of money necessary for exchanges. The growth of clearing house transactions means the growing use of checks, drafts and the like for the settlement of accounts ; it means the unprecedented growth of a system of bank-deposit currency, the development of an instrument for doing money-work without the use of actual money. Commodities whose value is expressed in terms of the standard of value are exchanged for other commodities expressed in the same terms, but actual money, apart from its use as a common denominator of value, does not enter into the transaction. In so far as the use of this medium of exchange increases, just in so far the need and demand for coin and notes is lessened.

A revolution has been effected in methods of exchange since the times of Ricardo and his contemporaries. The first clearing house record for a full year in London was in 1839.<sup>2</sup> The New

<sup>1</sup> Not an imaginary but an actual case ; *Senate Report*, part 1. p. 54.

<sup>2</sup> Joint-stock banks were not admitted into the system until 1854. Previous to that time, membership was confined to private bankers only.—LALOR'S *Cyclopædia of Political Science, Political Economy and United States History*, article "Clearing Houses."

York Clearing House was established in 1853.<sup>1</sup> Today, the banks by the use of the deposit-currency system<sup>2</sup> have made it possible to perform from 92 to 95 per cent. of all exchanges of goods without the actual transfer of money. The amount of the deposit currency in the United States, October 1, 1894, stood at \$2,963,000,000. In the United Kingdom the daily clearances of its banks are equal to one-fifth of the entire supply of gold in the country.<sup>3</sup> Old forms have passed away in monetary methods as in everything else. For the United States, with an increase of 500 per cent. in her clearings and a volume of deposit currency nearly six times as large as the whole amount of gold coin in the country,<sup>4</sup>—for such a country, doing business under such circumstances, to go back to outgrown, obsolete conditions for an explanation of present phenomena is palpably absurd.

In the light of these facts as to modern methods of exchange, no one can be so blind as to assert that all transactions are carried on by the instrumentality of actual money. And yet that is what is implied in the argument that the excess of transactions over and above the mediating capacity of the quantity of money in circulation caused the fall in prices. There was not money

<sup>1</sup> PALGRAVE'S *Dictionary of Political Economy*, article "Clearing System."

<sup>2</sup> By buying promissory notes and paying for them by "deposits" or debts of its own, payable on demand, which are placed to the credit of the customer.

<sup>3</sup> The system has found its most rapid growth in Anglo-Saxon countries, but it is beginning to be largely used on the continent also. In Germany a system of deposit accounts was begun at the Imperial Bank in 1876; it has since grown to more than 350,000,000 marks.

<sup>4</sup> The figures for the circulating media of the United States, October 1, 1894, are as follows:

|                                                                          |   |   |   |   |                    |
|--------------------------------------------------------------------------|---|---|---|---|--------------------|
| Subsidiary silver                                                        | - | - | - | - | 58 million dollars |
| Silver dollars                                                           | - | - | - | - | 54 " "             |
| Currency certificates                                                    | - | - | - | - | 55 " "             |
| Gold certificates                                                        | - | - | - | - | 64 " "             |
| Treasury notes (1890)                                                    | - | - | - | - | 121 " "            |
| National bank notes                                                      | - | - | - | - | 202 " "            |
| Gold coin                                                                | - | - | - | - | 500 " "            |
| Silver certificates                                                      | - | - | - | - | 330 " "            |
| United States notes                                                      | - | - | - | - | 267 " "            |
| Deposit currency of national banks, trust companies, private banks, etc. | - | - | - | - | 2,963 " "          |

enough; transactions were too numerous; prices fell; *i. e.*, actual money being the only medium by which this great number of commodities could be exchanged for one another, the insufficient supply of money reacted, according to the quantity theory, to lower prices. If actual money were not the only medium for exchanging goods, then the quantity of money would not have this decisive effect upon prices; the connecting link of the chain—*increase of transactions, limited money, low prices*—would be snapped; in other words this form of the theory that the quantity of money determines prices stands or falls with the assumption that money is the sole medium of exchange.

But there is no question as to the existence and efficacy of other media of exchange. The very fact adduced in support of the quantity theory, *viz.*, the increase in clearings, is itself, *ipso facto*, the strongest proof of the extent and importance of another medium of exchange, the deposit-currency system. The assumption of but one medium of exchange is, therefore, false, and the quantity theory, so far as it is dependent upon that assumption, is invalid.

The great increase in the amount of transactions has been pointed to, also, as showing the insufficiency of the supply of the circulating medium to perform so huge a task; as an indication of the scarcity or lack of money. The truth is that on the other hand the increase of clearings indicates not the lack of money, but the extent to which actual money has been supplemented by the use of other media of exchange; not the burden put upon actual coin and notes, but the degree in which that burden has been lightened. As has already been stated, in so far as the use of credit-devices has increased, just in so far the need and demand for actual money has been lessened.

The quantity of money may have been inadequate for the requirements of cash transactions. Actual money is employed to a considerable extent in retail trade, which in a sense certainly depends upon the quantity of money available for such transactions. But the fundamental characteristic which distinguishes the larger sphere of the wholesale exchanges of commodities

from that of retail exchanges is that in the former the basis of exchange consists of the commodities themselves. Transactions increase or decrease first, and the elastic medium of exchange follows after. The actual transactions, not the amount of the medium of exchange, form the basis and limit of the number of exchanges,—a condition of affairs the direct opposite of that which holds in the cash transactions of retail trade, where the medium of exchange is the foundation, and limits the volume of the exchanges.

In the larger sphere of wholesale transactions, then, another, different medium of exchange has come into use, and thus the strain upon actual money has been lightened. The argument from the increase of transactions is futile, therefore, both as a supposed aggravation of the burden upon actual money and as a prop to the quantity theory of the fall in prices.

#### IV.

But a discussion of the movement of prices and currency from 1861 to 1891 is incomplete if viewed merely from a negative standpoint. It remains to attempt some positive suggestions as to the causes of the phenomena under consideration.

The only part of the period in which the two lines of prices and of the quantity of money show any marked similarity of movement, rising and falling as if moved by some common cause, is the Civil War period of inconvertible paper money (1861–1879).<sup>1</sup> The characteristic fact of these years is, of course, the sudden and rapid depreciation of the circulating medium. December 28, 1861, the banks, in consequence of the previous heavy drain on their gold reserves, suspended specie payment; two days later the government followed their example. But the needs of the war were imperative, and to meet them the government chose the expedient of issuing inconvertible legal-tender notes. By the end of March, 1863, 450 millions of dollars of legal tenders

<sup>1</sup> The similarity of direction, as has been noted [see Chart II., p. 158], is most obvious from 1861 to 1865; from 1865 down to the resumption of specie payments also some parallelisms occur, as in 1865–1867, 1868–1869, 1874–1878.



had been authorized,<sup>1</sup> and the country was fairly embarked on a sea of almost unlimited depreciation.

To return once more to Chart I., the line *PP* indicates the course of this depreciation in so far as it is measured by the fluctuations of the gold premium.<sup>2</sup> As the chart shows plainly, prices and to a certain extent the amount of currency increase in unison with the steady progress of depreciation. That depreciation was the inevitable result of the public attitude of the time. The revealed weakness of the government in forcing upon the country a currency which Congress foresaw would never find acceptance except through its legal-tender character; the inability of the government to get further loans from any quarter; the empty treasury, and the uncertainty as to the termination of the war, these facts were of themselves sufficient to shake the confidence of the people in the power of the government to redeem its paper, and to cause the depreciation of the notes even had they not been issued in excessive quantity. When, however, the first 150 millions was followed by a second and a third in quick succession, the credit of the government was still further weakened. The issue of so large a quantity of notes became an index of the incapacity and weakness of the issuing power behind it, and so increased the depreciation still more. The value of the paper diminished rapidly,<sup>3</sup> and the increasing depreciation brought about a general shifting of price-level and a general loss of purchasing power; *i. e.*, prices rose.

The rise in prices was not, however, as the quantity theory would have it, merely the result of the increase in the quantity of the circulating medium, it was the result of a depreciation of the currency which had for its main cause the general loss of confidence in the ability of the government to redeem its promises. The actual quantity of money issued was one element in stim-

<sup>1</sup> Acts of February 25 and July 11, 1862, and March 3, 1863.

<sup>2</sup> The figures upon which the gold premium line is based are taken from the *American Almanac* for 1881, p. 335, and are an annual average—the arithmetical mean of the lowest and highest prices for the year.

<sup>3</sup> The maximum gold premium of 285 was reached July 11, 1864.

ulating the popular distrust of the government, and undoubtedly acted as a powerful factor in increasing the depreciation of the notes, but even had the quantity of money issued been less, the lack of confidence in the credit of the issuer must have resulted, in any case, in the depreciation of an irredeemable paper currency.

Prices followed the course of depreciation, and the course of depreciation cannot be said to have been determined simply by the quantity of money in circulation. This view is confirmed by the course of the respective lines of Chart I. from 1865 to 1879.<sup>1</sup> The movement of the gold premium does not follow the changes in the quantity of money. For four years, 1870–1874, the value of the paper remains at the same level, while the quantity of it is steadily rising. From 1869 to 1870 the contrast is even more striking, the value falling while the quantity rises. If depreciation was caused solely by excessive issue, why does the depreciation grow less and less marked when the quantity of money is still increasing? Evidently other factors were influential in producing the loss of value of the paper currency besides the quantity of it in circulation.

The period from 1865 to 1879, in addition to showing the lack of correspondence between the amount of currency and the gold premium lines, indicates also which of these two lines had most influence upon prices. The level of prices in these years follows closely the course of the gold premium which measures approximately the depreciation of the currency. The amount of the circulating medium, on the other hand, gradually increases, but there is no correspondence between this increase and the level of prices except where the course of depreciation happens to coincide with the movement of the currency.<sup>2</sup> So long as

<sup>1</sup>In regard to the gold premium line from 1864 to 1865, gold, being but a single commodity, reaches its height sooner and falls more rapidly than the complex line of prices.

<sup>2</sup>*E. g.*, 1865–1867, 1868–1869, 1875–1877, etc. The higher range of gold in 1875 was the result of the extreme scarcity of gold available for market purposes. A small group of speculators got control of the market and forced high prices on gold loans. —*Financial Review* (published by the *Commercial and Financial Chronicle*), New York, 1878, p. 29.

the quantity of paper and the course of depreciation move together, prices move in the same direction, but when the ways part, and depreciation becomes less apparent while the amount of currency continues to increase, then the action of the price-line shows plainly which of the two elements it obeys. Not the quantity of notes in circulation, but the amount of depreciation determines the price-level.

With the restoration of public confidence after the successful termination of the war, came the hope of a speedy return to a specie basis. The prospects pro or con for resumption find expression in the movement of the price of gold, which is closely followed by that of general prices. As the year 1879 is approached depreciation becomes less and less perceptible and prices follow the decreasing premium.

Even in the Civil War period, then, an examination of the supposed relations existing between the quantity of money and prices fails to confirm the validity of the quantity theory. In the only part of the entire period which seemed to suggest some connection between the amount of currency and general prices, the phenomena not only are entirely explicable upon other grounds, but even flatly contradict the supposed relation. From 1861 to 1865 prices were determined not by the amount of notes issued, but by the popular estimate of their value under the existing conditions; from 1865 to 1879 the level of prices was chiefly influenced by the probability of a resumption of specie payments; while from 1879 to 1891 the results of this study go to show that whatever the cause may have been<sup>1</sup> that had most influence upon prices, it was not the quantity of money.

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<sup>1</sup> The possibility of accounting for the fall in prices by an entirely different, non-monetary set of causes, those connected with changes in the methods of transportation, production, etc., has been quite fully presented and discussed recently, in various places. A consideration of that subject is therefore omitted from this paper, as somewhat aside from the principal point of the validity of the quantity theory.